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EXAMINING THE EXPERIENCES OF STUDENTS ENROLLED IN SMALL COMMUNITY COLLEGES BY TIME OF ENROLLMENT

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EXAMINING THE EXPERIENCES OF STUDENTS ENROLLED IN SMALL COMMUNITY COLLEGES BY TIME OF ENROLLMENT

by

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Dedication

To my children Jack Thomas Fancher

and Luke Connery Fancher

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EXAMINING THE EXPERIENCES OF STUDENTS ENROLLED IN SMALL COMMUNITY COLLEGES BY TIME OF ENROLLMENT

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The purpose of this study was to examine the experiences of students enrolled in small community colleges to determine if there was a difference in the degree to which students were engaged based upon their primary enrollment in day or in evening courses. Specifically, the study investigated the amount of time and effort students dedicated to their academic pursuits and the degree to which institutional policies and practices supported them in their efforts to determine whether time of enrollment was a significant factor in predicting engagement. The primary goals of the study were to contribute to the understanding of students' experiences and to provide empirical evidence that might serve as the foundation for program development and reform.

The findings from the quantitative analysis revealed a significant predictive relationship between time of enrollment and five of the fourteen engagement variables considered in the study. Enrollment in evening courses was linked to lower levels of engagement in each of these five areas: student effort, academic challenge, support for learners, academic preparation, and school opinions. The results of the study supported

the development of a theoretical model that depicts student engagement based upon primary enrollment in evening courses. The model places support for learners at the forefront. Students' opinions are the end result, with each of the other engagement variables being affected by the levels of support perceived by evening students.

Table of Contents

List of Tables

List of Figures

Chapter One: Introduction to the Study

PURPOSE OF THE STUDY

In the past few decades, our nation's community colleges have experienced unprecedented growth. This is evident, not only in the sheer number of new institutions and in the expansion of others, but also in the community college's scope and mission. Once an institution whose sole purpose was to provide transfer oriented education, the community college has become the center of educational activities in most communities by also providing workforce preparation, basic adult education, and personal enrichment. The community college's comprehensive mission and dedication to open access have made it a prominent feature in the American higher education landscape, contributing to the economic viability of communities and providing essential educational access to countless individuals who would otherwise be excluded.

The evolution of the community college movement to its current state might be described as progress by many; however, it is viewed in a different light by those who question the effectiveness of community colleges in maintaining such a broad focus without sacrificing a fundamental commitment to the provision of quality education (Bailey & Averianova, 1999). Substantiating those individuals' concerns are the historical data that point to the low success rates of community college students.

Simply stated, "More students leave their college or university prior to degree completion than stay." (Tinto, 1993, 1). While this observation alludes to a problem shared by all higher education institutions and not one that is unique to community

colleges, it points to a particularly problematic situation for community colleges, where all indicators suggest students have consistently higher attrition rates than their university counterparts. Over the past 12 years, a number of sources reported relatively consistent findings with regard to the number of community college students who persist to completion of their program of study. One source estimated one in three community college students were likely to earn an associate degree or certificate (Tinto, Russo & Kadel, 1994). A second source indicated 63 percent of individuals who began at a community college did not attain a credential within five years (Baker & Smith, 1997). Yet another source told us the six-year completion rate of students who started at a public two-year institution during the 1995-96 academic year was 39 percent after taking transfer students into consideration (American Council on Education, 2003). Many of the students who leave prematurely do so within the first year of their studies. The percentage of first year community college students who returned for a second year between Fall 2000 and Fall 2001 fell to a new low of 51.8 percent (American College Testing Program, 2001). These data reflect a persistent and pervasive problem within the community college environment.

As all indicators suggest community colleges will be called upon to serve even more students, community college leaders are at a critical juncture. As champions of the community college's commitment to a comprehensive mission and to open educational access, community college leaders are not likely to look to solutions that result in a narrower purpose or that deny access to less qualified individuals. Instead, any hope of reversing this troubling trend will rely upon the identification and implementation of programs and practices that will produce more successful student outcomes. As a

preliminary first step, research studies are needed to inform college decision-making processes. Specifically, as revealed in existing literature, there is a need for research that focuses specifically on the community college environment and its students. A recent report by Bailey and Alfonso (2005) highlighted several important weaknesses with regard to retention research in community colleges. To date, research has been conducted primarily in four-year residential settings and has failed to consider the unique characteristics of community colleges and their students. In addition, there are methodological problems in the research that does exist. Most research pertaining to program effectiveness has been based on a single institution design. The authors of these studies pointed to a weakness in the dissemination and discussion of retention research in the community college environment.

To this point, researchers have focused a great deal of attention on student retention and success, in general; however, studies pertaining to community college students, in particular, are significantly underrepresented in the total body of research (Pascarella & Terenzini, 2005). In more than 2,000 studies reviewed by Pascarella and Terenzini (1991), Pascarella (1997) reported that only five percent focused on community colleges. Despite the fact that one half of undergraduates enrolled in public institutions attend community colleges (Pascarella & Terenzini, 2005), Pascarella (1997) noted that most of his own research pertained to students enrolled in four-year institutions. Other researchers also acknowledge the need for further research studies in community colleges. Astin (1993) stated that he did not include community college students in his study because their experiences are so different that he believed including them might confound his findings.

While certain elements might be universally applied to all higher education students, findings from studies conducted at four-year residential institutions fail to generate a comprehensive picture of community college student persistence or attrition. The reason for this might best be explained by the differences in populations served by each institutional type. University students are more likely to fit the mold of a "traditional" student. By contrast, community college students typically possess very different characteristics:

> More and more of today's students are under-prepared for the academic reality of the college experience. They are working too many hours, they have too many family responsibilities, they are not focused on the personal and professional goals necessary to persist in an academic environment, they come without support from family and/or friends, and they are unclear on what they wish to do with their lives (O'Banion, 1994, p. 15).

Just one in six U.S. undergraduate students resembles the profile of a "traditional" college student (McClenney, 2001). Because of the inherent differences in higher education entities, researchers have yet to uncover a solution or set of solutions workable for all institutions. While a 1970s research study pointed to a seemingly straightforward approach -- "Recruit intelligent men and women with good academic records from families with high expectations," (Cope, 1978, p. 9) -- community college leaders are unlikely to find such an approach to be workable.

Only recently have researchers started to recognize the unique character of community colleges and conducted more studies that target community college students. However, an examination of those studies revealed some inherent flaws, which were noted by Pascarella, Wolniak, and Pierson (2003). Specifically, studies viewed community colleges as a set of homogeneous institutions and failed to recognize there

was considerable variation when one considered characteristics such as size. As an example, small colleges were less likely to foster diversity on campus, leading to student attrition as a result of incongruence (Tinto, 1993).

In their most recent work, Pascarella and Terenzini (2005), acknowledged a growing body of literature that has contributed to our understanding of community colleges and how they influence students. Additional studies, particularly those that recognize the heterogeneous nature of institutions and their students, can further define and delineate the approaches that work best in different community college environments.

CONCEPTUAL FRAMEWORK AND SCOPE OF THE STUDY

A number of leading researchers, initially studying the experiences of students in four-year residential institutions, have contributed to the broad theoretical frameworks that currently guide our understanding of student persistence. Astin (1975, 1984, 1993), Bean and Metzner (1985), Pascarella and Terenzini (1979, 1991, 2005), and Tinto (1975, 1987, 1993) found that, to varying degrees, factors such as background characteristics, intentions and commitment, involvement, and academic and social integration contributed to students' decisions to stay or leave. In the latter studies, the researchers began to consider whether the principles espoused within the frameworks could be applied equally to all students.

In terms of background characteristics, a student's high school grade point average was found to be the single strongest predictor of degree completion (Astin, 1993). In contrast, students who possessed low aspirations, demonstrated poor study

habits, had relatively uneducated parents, came from small towns, and were older than most freshmen were determined to be the most vulnerable (Astin, 1975). Of a list of seven factors associated with a risk of not attaining a degree, 24 percent of community college students possessed four or more factors compared to only 4 percent of four-year students (Coley, 2000). These findings suggest community college students' individual characteristics are a significant force in affecting their degree of success.

In addition to this predisposition to attrition, researchers also investigated whether other factors were more prevalent among certain groups of students. Bean and Metzner (1985) studied the attrition process of non-traditional students to determine the relationship between integration principles and persistence. Defined as students who were twenty-four years of age or older, were commuters, were part-time, or a combination of any of these three factors, non-traditional students were actually more affected by the external environment than by social integration variables. Tinto (1993) addressed the differences in departure from four-year institutions and community colleges and reported departure from community colleges tended to be less a function of social events and more a function of academic matters, less the result of institutional events and more influenced by external forces. Pascarella and Terenzini (1991) found that, in commuter schools, social integration had less of an influence because there were fewer opportunities to get involved.

While a more complete review of the literature will be covered in the second chapter, this overview highlights several important implications for community college practitioners. First, community college students typically face extraordinary challenges because of prior academic preparation, or lack thereof, and personal circumstances. This

underscores the importance of creating a campus environment where obstacles, whether they are financial, academic, or personal, are systematically recognized and addressed. Second, community college students, because of conflicting demands and personal circumstances, typically limit their campus presence to the fulfillment of academic responsibilities. Therefore, community college educators must focus on redesigning the overall academic experience to increase student success.

Until recently, community college leaders, though they were aware of the dismal retention rates of students, lacked a comprehensive tool that would enable them to assess institutional quality defined in terms of the inclusion of practices known to impact student learning and persistence. In 2001, the introduction of the Community College Survey of Student Engagement (CCSSE) filled that gap. A companion to the National Survey of Student Engagement (NSSE), which was designed for use in four-year settings, "CCSSE provides a new focus on educational practices that research shows us are related to student success" (Ouimet, 2001, p.8). Student engagement refers to "the time and energy students devote to educationally sound activities inside and outside of the classroom, and the policies and practices that institutions use to induce students to take part in these activities" (Kuh, 2003, p. 25). The Community College Student Report (CCSR), CCSSE's survey instrument, is essentially a student feedback mechanism that is designed to measure the processes – institutional practices and student behaviors – that lead to increased learning and desired educational outcomes (McClenney & Marti, 2006).

The writer's association and experience with one of CCSSE's partner projects initially generated the interest in conducting the study. The MetLife Foundation Initiative on Student Success was a four-year program to recognize and reward sixteen

community colleges that demonstrate exemplary performance as determined by a combination of factors. Among them were institutional student persistence data and student responses obtained through the CCSR. Each institution is assigned a retention index score, an additive index combining the college's scores in three key areas of engagement: active and collaborative learning, student-faculty interaction, and support for learners. Each of the honored institutions is the subject of a more in-depth investigation, which consists of a site visit by a team of project consultants. During each visit, consultants conduct a series of focus groups guided by a uniform protocol to determine what institutional factors and practices contribute to students' successful completion of educational goals. Interviews are conducted with three groups of students: day, evening, and non-returning, as well as with college administrators, faculty, and staff.

In February 2004, during the second year of the MetLife Foundation Initiative on Student Success, the writer served as a consultant on a site visit to one of the small colleges that received the honor. During each student focus group, participants were prompted to comment on a variety of areas including the nature and extent of their interaction with faculty members, different teaching methodologies employed by instructors, and the level of guidance and support provided by campus personnel. The first group consisted of non-returning students and the second was comprised of students enrolled primarily during the day. During both groups, participants repeatedly described programs, practices, and experiences they perceived as positive. Specific comments were very consistent with institutional variables mentioned in student persistence research, which one might assume contributed to the college's high retention index score. However, during the third focus group, the comments made by students enrolled in

evening courses revealed a very different collegiate experience. Evening students did not perceive the same level of support as their peers. They described instructional practices that were neither interactive nor collaborative. In short, the evening students who participated in the focus group reported significantly lower levels of engagement than their daytime counterparts.

Not at all surprised by the discrepancies in the experiences of students, college personnel cited several probable reasons, which were largely attributable to the size of the institution. First, while the college offered a comprehensive network of support services, the staff responsible for the provision of services was quite small. Therefore, only limited services were available in the evenings. Second, the college faced fierce competition with neighboring higher education institutions for qualified instructors to teach evening courses. Other institutions employed a considerably higher pay scale for adjunct faculty, making it extremely difficult for the institution to secure qualified instructors to each evening courses (Menschenfreund, 2004).

The challenges described by institutional leaders were not unlike those faced by countless other institutions. Virtually all college leaders are challenged with the allocation of extremely limited resources and are faced with difficult decisions. This problem is often exacerbated in small colleges that employ few student service staff members and have small full-time faculties. Small colleges are less likely to maintain an institutional research department, which increases their reliance on outside studies like that proposed by this writer.

STATEMENT OF THE PROBLEM

The purpose of the study was to examine the experiences of students enrolled in small community colleges to determine if there was a difference in the degree to which students were engaged based upon their primary enrollment in day or in evening courses. Specifically, as the definition of student engagement suggests, the study looked at the time and effort day and evening students enrolled in small community colleges dedicated to their studies and additional activities that contributed to student success. It also examined the manner in which small college leaders allocated resources and organized programs and services to encourage successful educational outcomes.

The study was guided by the following research questions:

1. Are there differences in the experiences of students attending small community colleges based upon their primary enrollment in day or in evening courses with regard to the following five benchmarks:

- Active and Collaborative Learning
- Student Effort
- Academic Challenge
- Student-Faculty Interaction
- Support for Learners

2. Are there differences in the experiences of students attending small community colleges based upon their primary enrollment in day or in evening courses with regard to the following nine factors:

- Faculty Interactions

- Class Assignments
- Exposure to Diversity
- Collaborative Learning
- Information Technology
- Mental Activities
- School Opinions
- Student Services
- Academic Preparation

3. If differences were determined to exist, were they sustained in the presence of appropriate statistical controls?

Utilizing data obtained from CCSSE, the researcher examined responses from students enrolled in small community colleges throughout the nation. The initial two questions compared day and evening students' experiences with regard to fourteen key areas of student engagement. These study variables, which are further defined in Chapter 3, represented related item clusters and provided a logical and comprehensive framework for presenting the findings. Because students possess many characteristics that might impact their experiences, the second question enabled the researcher to employ statistical controls to demonstrate whether differences were actually attributable to time of enrollment as opposed to one or more of the other student variables.

SIGNIFICANCE OF THE STUDY

The significance of the study is best understood by first considering the significance of the overarching problem. Student attrition, at the levels reported, is problematic, not only for the affected individuals, but also for the institutions and the communities they serve. For students who enter community colleges in search of an education and associated opportunities only to leave prior to fulfilling their intended goals, the consequences are dramatic. If these students had earned a degree or credential, they would enjoy a substantial economic advantage compared to individuals holding only a high school diploma (Pascarella, 1999). Because they did not, they might never gain access to an estimated eighty percent of new jobs that require postsecondary education and advanced or superior skills (McCabe, 2000).

Student attrition presents a significant threat to the financial viability of higher education institutions and, in turn, to the economic and social well being of our communities and nation. In economic terms, a student who departs prematurely from a public institution costs the institution the amount of all future tuition payments as well as the corresponding funding from state appropriations. Even a modest reduction in the attrition rate can contribute thousands of dollars, even in a small institution (Levitz, Noel & Richter, 1999). "In this time of financial constraints, keeping students enrolled is one of the primary challenges facing colleges" (Tinto et al., 1994, p. 26). The economic stability of communities is jeopardized when business and industry demands for qualified workers exceed the supply. Today, virtually every segment of the workforce requires skills and competencies beyond the secondary level (Kuh, 2001). Our communities also miss out on the social benefits that are derived from a more educated population. Among

them is a reduction in crime rates, a more literate citizenry, greater and more informed participation in the democratic process, and a decrease in the incidence of communicable diseases (Owen, 1994).

The problems associated with student attrition are even more complicated by the persistent external demands for public accountability. Policy makers, as guardians of the public trust, are keenly aware of the current state of affairs and, as a result, are placing unprecedented demands on institutions to demonstrate their effectiveness. A significant proportion of the public's limited resources are invested into higher education with a clear expectation that the public will receive a solid return on its investment. The subject of a recent investigation by Roueche, Johnson, and Roueche (1997), institutional effectiveness is defined as "an internal strategy for planning and evaluating that generates data by which the college can determine if it is matching its performance to its purpose" (p. viii). In light of the alarming student success data previously reported, college leaders would be hard pressed to demonstrate that the institutions they lead are performing effectively. In the future, colleges will undoubtedly be held to stricter standards with regard to student outcomes. The 1994 report of the Community College Roundtable identified 13 core indicators that reflect the community college mission. Among them are several measures that point specifically to student persistence and goal attainment (Alfred, McClenney & Ewell, et al., 1994). The prevailing trend of linking institutional funding opportunities to the successful completion of performance initiatives makes it increasingly critical for institutional leaders to improve student outcomes on community college campuses (Roueche et al., 1997). In short, "A revolution appears to be sweeping the campuses of the nation's colleges and universities, and it is based on a simple credo:

The success of an institution and the success of its students are inseparable" (Levitz et al., 1999, p. 3).

In order for community colleges to improve institutional performance, college leaders must have a better understanding of the educational and environmental variables that promote student success. To this point, research has been limited, partially because of a lack of institutional resources for research in the community college sector (Pascarella & Terenzini, 1998). Many of the completed studies have been limited by a single institution design. The findings of this study may make a timely contribution to the understanding of the experiences of students enrolled in small community colleges throughout the nation. The availability of data generated by the Community College Student Report represents an unprecedented opportunity to extract information from a large population of students and to use the information to determine whether students are, in fact, engaged differently according to the time of their enrollment. The results of this study can provide valuable information to college leaders whose institutions share similar challenges but who lack the resources to undertake such an investigation.

George Kuh (2003), Director of the National Survey of Student Engagement, observed that engagement often varies more within a given school than between schools. In fact, even among the high performing institutions highlighted in the Documenting Effective Educational Practice (DEEP) project from the Center for Postsecondary Research, it was found that each institution has one or more groups who were less engaged (Kuh, Kinzie, Schuh, Whitt, et al., 2005). Identifying those students is an essential first step in the process of involving them in meaningful educational activities. If findings reveal significant differences in the experiences of students, it will help to

create what Kay McClenney (2004b), Director of the Community College Survey of Student Engagement, calls "critical conversations" among community college leaders and personnel to ascertain why certain groups are not effectively engaged.

DEFINITION OF TERMS

The terms retention and persistence are used interchangeably throughout the document. However, in the context of the community college environment, and in turn, within this study, the terms were assigned different meanings than the traditional definitions suggest. The traditional measure of student retention is the number or rate of first-time, full-time freshmen who return to the same institution for the second year of study (Levitz et al., 1999). In the community college sector, student intentions and enrollment patterns are often inconsistent with this definition. Community college students are often more likely to fit Astin's (1975) definition of a "stop out." This student is one who interrupts college but has a reasonable chance of returning in the near future. Data indicate that while 40% of community college students leave within one year, two-thirds return within five years (Miles, 2001). Moreover, many students who enter community colleges do not return for a second year because they successfully accomplish their goals within one year. A major new foundation-sponsored initiative, *Achieving the Dream: Community Colleges Count,* is working with colleges in nine states to monitor three measures of persistence: course completion rate (grade of C or better); persistence term-to-term; and completion of certificates and/or degrees. Within the context of this study, retention and persistence were used to describe an enrollment pattern that ultimately leads to the completion of educational goals.

The study focused on students enrolled in small community colleges. To establish the parameters that will define which colleges are considered small for the purpose of the study, the researcher adhered to the guidelines established by CCSSE. For the purposes of this study, small colleges were defined as those that enrolled 4,500 or fewer students (CCSSE, n.d.).

ASSUMPTIONS

The assumptions included the following:

1. Student responses to the survey instrument accurately represented their experiences.
2. The survey instruments were administered in accordance with the guidelines established by CCSSE.

The survey instrument was both valid and reliable as supported by extensive psychometric evaluation (Marti, in press).

Chapter Two: Review of the Literature

OVERVIEW

A review of research pertaining to student persistence reveals a continuum of theoretical models that attempt to identify the variables relevant to our understanding of this important phenomenon. Some early researchers point to relatively simple explanations of student departure that focus either on the individual or on the institution. More widely researched and accepted models are based upon the premise that the key to understanding why students leave prior to goal completion requires us to examine the interaction of multiple variables over time. The broad theoretical frameworks that inform most current research and practice, though largely based upon research conducted in four-year residential institutions, will be explored. Within the models, the writer will focus on the relevance to community colleges, as identified in the literature. Subsequent studies, focusing specifically on community college environments or on certain target groups will also be reviewed. Finally, the construct of student engagement will be introduced. Specifically, the writer will explore the link between engagement and positive educational outcomes as revealed in recent research and literature.

STUDENT CHARACTERISTICS

Research studies that point to individual characteristics in predicting the likelihood of leaving the academic environment prior to goal attainment identify certain characteristics that make one more susceptible. Astin (1975) found students who possessed low aspirations, demonstrated poor study habits, had uneducated parents, came from small towns, and were older than most freshmen were the most vulnerable. Similarly, Coley (2000) identified a number of risk factors associated with higher

attrition rates. Among them were delayed entry to college, part-time enrollment, full-time employment, financial independence, single parenthood, responsibility for dependents and the lack of a high school diploma. Findings like these are highly relevant to researchers in the community college milieu and may account for some of the variance between the attrition rates of two and four-year students because characteristics associated with two-year students virtually mirror these lists. Community college students are disproportionately more likely to attend part-time, hold jobs, be older than their university counterparts, be first generation college attendees, be academically under-prepared, be from lower socioeconomic levels, and be unsure about their educational goals (O'Banion, 1994). Most studies attributing the probability of attrition to a particular characteristic or set of characteristics frequently include data to support the researchers' arguments. For example, first-year community college students who studied part-time and for part of the year had a 58 percent attrition rate compared to a 23 percent attrition rate associated with their counterparts who attended full-time for the full year (American Council on Education, 2002).

Additional studies have investigated the role of other student variables, primarily driven by institutional policies, and discovered variances in student outcomes. Smith, Street, and Olivarez (2002) conducted a study of student persistence in a community college setting by looking at the differences in persistence behaviors based upon the time of enrollment. The researchers compared student outcomes by categorizing students into one of three groups: early registration, regular registration, and late registration. Late registrants were much less likely to persist into the next semester, which supported findings described by Roueche and Roueche (1994).

Studies that attempt to isolate or identify the characteristics associated with student leavers have important implications for community college practitioners. They generate knowledge that informs the development and implementation of institutional practices that attempt to counter the negative outcomes associated with student characteristics. With that said, such studies often fall short of creating a comprehensive framework that contributes to the understanding of why certain students leave.

TINTO'S THEORY OF STUDENT DEPARTURE

While it is safe to say that certain individuals may have characteristics that statistically increase or decrease their chances of succeeding in college, those characteristics do not guarantee success or failure. Students who possess identical risk factors will likely emerge from their educational endeavors with varying degrees of success. Therefore, a comprehensive theoretical model would consider more of the variables that impact student persistence. To that end, Tinto (1975, 1987, 1993) developed one of the most widely researched and applied models.

The decision to persist, according to Tinto, could be viewed as a longitudinal process in which pre-college experiences were impacted by the institutional environment. "In its full form our model of student institutional departure sees the process of persistence as being marked over time by different stages in the passage of students from past forms of association to new forms of membership in the social and intellectual communities of the college" (Tinto, 1993, p. 135). Various factors affected the degree of success each student experienced in this journey.

Initially, Tinto's model extended the work of Spady (1970), who applied Durkheim's research on identifying the roots of suicidal behavior. Durkheim found people who were not integrated into their social environments demonstrated more suicidal tendencies. Likewise, Spady determined students who were less involved socially and were less like other students in terms of values were more likely to drop out.

In his model, Tinto (1993) identified the roots of student departure and classified them into one of three categories: individual, interactional, and external. In the first category, decisions to depart were a function of a student's pre-college experiences. Students who entered college with the intention of earning a credential were more likely to succeed. He pointed out that certain students entered the institution to acquire a specific skill set or to obtain credits for transfer and never intended to graduate. Other students entered without specific educational goals and never developed them. Tinto (1993) cited Waterman and Waterman's (1972) study of career decision-making. The researchers determined career indecision was much more prevalent in student leavers than in persisters. Thus, undeveloped intentions over time contributed to a student's decision to leave. The second individual variable in Tinto's model was commitment. The student's willingness to invest the time and energy required to persist in college was of primary importance. Tinto referred to Pace's (1980) work in which the researcher found the quality of student effort to be more closely related to academic outcomes than were background factors. Commitment to specific academic and personal goals was also a significant determinant of academic persistence (Cope & Hannah, 1975). The second variable related to commitment in Tinto's model was institutional commitment. If a student perceived that graduation from a certain institution was essential to achieving

career goals or gaining familial approval, the student would likely persist despite adversity in other areas.

The second category outlined in Tinto's model included the interactional roots of departure. The role of these variables in the model was underscored by his assertion that, "decisions to withdraw are more a function of what occurs after entry than what precedes it" (Tinto, 1987, p. 6). Tinto described four "clusters" of events that influenced departure decisions: adjustment, difficulty, incongruence, and isolation. For many students, the adjustment to college represented a major hurdle. Students who were moving away from home had to separate themselves from past associations and adapt to a new environment. This was compounded by the academic adjustment experienced by virtually every student who was challenged to meet the more difficult intellectual demands of higher education. Many students who experienced adjustment problems left early in their first term. The decision to leave was particularly pronounced in students who lacked specific goals and commitments. In addition to adjusting to a new and unfamiliar environment, students faced academic demands that exceeded their expectations and challenged their abilities. In this cluster, the students' academic backgrounds became a factor. Students who possessed lower high school grades experienced more failure (Astin, 1975). Tinto cited Irvine's (1966) study in which the researcher determined high school grade point average was the single best predictor of college graduation. However, it still accounted for only twelve percent of persistence behavior. Academic dismissal was the cause of less than one quarter of all institutional departures. In addition to these factors, Tinto classified incongruence as the third category of interactional causes of departure. As a result of formal and informal interactions with other members of the institutional environment,

students made judgments as to their personal fit with the environment. This occurred on an academic level where students perceived they could not excel in academic endeavors or in the social realm because they were at odds with the values, preferences, and behaviors of others. Students who did not feel they fit in were more likely to depart. The fourth and final interactional cluster was isolation in which some students failed to develop personal bonds. Tinto cited Husband's (1976) study in which the researcher examined the likelihood that students could identify an individual on campus with whom they had a significant relationship. Non-persisters were much less likely to identify such a person.

The third category of factors prompting student departure decisions identified by Tinto was external. Involvement with external entities was the key to determining some students' persistence decisions. When external influences like family and friends were generally supportive of college attendance, persistence was encouraged. However, when external relationships and responsibilities were at odds with college responsibilities, attendance was threatened. External responsibilities tended to hinder involvement and participation.

The factors outlined in Tinto's model have some important implications for community colleges. Tinto (1993) cited a number of studies that differentiated the causes of departure for students enrolled in four-year residential and community colleges. Academic matters were more important in many community college student decisions to depart. External forces were also paramount in many student decisions. Students who attended community colleges limited their campus participation to activities related to program completion. The daily lives of community college students were dominated by

complex external obligations. These findings are consistent with the characteristics of community college students identified in the previous section. In his more recent work, Tinto (1993) did suggest the social environment affected two-year community college students. In support, Tinto referenced Neumann's (1985) study of the experiences of community college completers who were previously determined to be at high risk of not completing. In the qualitative study, Neumann found that students' success was repeatedly attributed to student contact.

Tinto (1993) also considered institutional size as a factor in retention. Smaller colleges were less likely to have a variety of social opportunities; however, the small size enhanced the amount and quality of student faculty interaction. The lack of diversity that was more likely to be apparent in small colleges may have contributed to the leaving decisions of more students as the result of incongruence.

With the various causes identified, Tinto (1993) explained the longitudinal interaction over time that contributed to departure decisions. Persistence required an individual to successfully integrate into the academic and social realms of the institution. While students entered with certain intentions and commitments, daily interactions with other individuals in both the academic and social environments were highly relevant to subsequent persistence decisions. Students who became isolated from others or who experienced incongruence were less likely to stay. Institutions played a key role in establishing the social and academic communities through which students became integrated. The academic domain was defined as the formal education of students and the activities that occurred in classrooms and laboratories involving faculty and staff. The social domain consisted of the daily activities and interactions with peers and faculty

outside of the formal academic realm. Tinto (1975) found a compensatory relationship between a student's integration into the academic and social domains of the college. Students who experienced a low level of academic integration might compensate with a high level of social integration and students who experienced a low level of social integration might persist provided they achieved a sufficient degree of academic integration.

Borglum and Kubala (2000) applied the model of Tinto et al., (1994) to a two-year institution. Specifically, the researchers looked at whether community college students who felt academically and socially integrated were more likely to succeed in courses than students who did not. They also looked at the academic skills of the students involved to ascertain whether there were differences in the skill levels of students who were successfully retained. Essentially, the study combined two types of retention research by including both student characteristics and integration principles. Borglum and Kubala (2000) found that students who felt academically integrated also felt socially integrated suggesting the two domains are not separate in a community college environment.

More recently, Braxton, Hirschy, and McClendon (2004) considered the implications of Tinto's model for commuter institutions. Finding that the model had much less explanatory power in non-residential schools, the researchers pointed to the need for a model that would better account for departure from this type of institution. In particular, they found only modest support for the role of social and academic integration in furthering the level of institutional commitment. Instead, Braxton, Hirschy, and McClendon (2004) developed sixteen "elements" they argued would better contribute to

a theoretical explanation of retention in commuter institutions. Categorized as economic, organizational, psychological, and sociological, each proposition was based upon empirical evidence and considered the unique commuter environment and the characteristics of commuter students. In contrast to Tinto's earlier work, the researchers focused more upon the influence of students' external environments and support systems as well as intrinsic motivation.

PASCARELLA AND TERENZINI'S STUDENT PERSISTENCE MODEL

Pascarella and Terenzini have amassed a significant body of research pertaining to student persistence both in collaboration with one another and in association with other colleagues. As a result of their findings, the researchers asserted the key elements in retention efforts were interaction and involvement. "A large part of the impact of college is determined by the extent and content of one's interactions with major agents of socialization on campus, namely, faculty members and student peers" (Pascarella & Terenzini, 1991, p. 620).

Pascarella and Terenzini (1978, 1979a, 1979b, 1980) first sought to validate and operationalize aspects of both Spady's and Tinto's findings regarding the significance of the interaction between students and faculty and also the importance of social and academic integration. Pascarella, Duby, and Iverson (1983) extended the scope of Tinto's findings beyond the four-year residential setting. Pascarella and Terenzini (1991, 2005) embarked upon in-depth investigations of the effects of higher education in How College Affects Students: Findings and Insights From Twenty Years of Research and How College Affects Students: A Third Decade of Research.

While earlier researchers (Tinto, 1975, 1993; Spady, 1970) had established a connection between student-faculty interaction and student persistence, Pascarella and Terenzini (1978) pointed to several limitations inherent in the previous studies. As a result, the researchers investigated the relationship between student-faculty interaction and freshmen year outcomes with the inclusion of two important dimensions. Rather than focusing solely on the number of interactions, they looked at the type of interactions between students and faculty to determine if type was a significant variable. In addition, they controlled for fourteen pre-college student characteristics. They found interactions that focused on both intellectual and course related matters had the strongest partial correlation with academic performance and intellectual growth. Conversely, interactions related to career concerns had the strongest partial correlation with personal development.

In a separate investigation, Pascarella and Terenzini (1979a) applied similar principles in an effort to validate the Tinto and Spady models. Acknowledging that both models had social and academic integration as basic elements, they sought to extend previous work by separating the results by gender. Findings supported the significance of informal contact between students and faculty members and its role in facilitating social and academic integration. Interestingly, while both men and women were positively impacted by the frequency of contacts focusing on intellectual and course related matters, they were affected differently by other categories of interaction. For men, discussions of career plans and academic planning were positively associated with persistence. For women, persistence was correlated with the frequency of contacts characterized by informal socialization and discussion of campus issues.

Pascarella and Terenzini (1979b) further studied the constructs of academic and social integration as they affected persistence decisions. The researchers utilized a longitudinal design to determine the interactive effect of measures of social and academic integration with measures of pre-college characteristics to predict persistence and to identify the interactions between measures of social and academic integration. Their findings underscored the importance of student experiences during the first year and supported the notion that the effects of academic and social integration may outweigh the effects of pre-college characteristics in influencing student decisions. They also uncovered evidence to support Tinto's hypothesis for a compensatory association between academic and social integration. Specifically, they found high levels of academic integration characterized by informal faculty contact compensated for low levels of social integration as well as other areas of academic integration.

Early studies by Pascarella and Terenzini were limited to four- year residential institutions. Seeking to determine whether Tinto's model was generalizable to a commuter environment, Pascarella et al. (1983) conducted a single institution study. The researchers cited Chickering's (1974) observation that commuter students were less likely to be involved in cultural and intellectual activities and were less likely to interact with others, which previous studies had uncovered as important factors affecting student success. Because the opportunities for involvement were different, the study was intended to investigate what, if any, dimensions might need to be reconceptualized. From their findings, Pascarella et al. (1983) recommended Tinto's model be revised to better explain commuter institutions. They found that, while academic integration still had a positive influence on persistence, social integration actually had a negative effect in a

commuter environment. In addition, some pre-college characteristics had a stronger direct effect on persistence. The researchers pointed to the fact that students spent less time on campus so that their experiences had less of a mediating effect on pre-college attributes. The researchers also added the variable of intention, which was previously introduced by Bean (1990) and later incorporated into Tinto's (1993) revised model, and found that intention had the strongest direct effect on freshman year persistence.

In a subsequent study, Pascarella (1997) further delineated the influence of the campus environment on community college students. He concluded, "The classroom experience is likely to be the major institutional influence on the vast majority of community college students" (p.16). This was attributed to the fact that community college students tend to spend little time on campus outside of class (Chickering & Reisser, 1993). The quality of teaching and the nature of interactions with faculty and peers were identified as important components in the overall educational experience of students (Pascarella, 2001). Braxton, Hirschy, and McClendon (2004) concurred with this finding and suggested classroom learning environments should be structured in a way that maximizes integration, citing the effectiveness of learning communities in commuter institutions.

Napoli and Wortman (1998) applied elements from the work of Pascarella et al. in their study of retention among community college students. Consistent with previous studies, they found a link between pre-college characteristics and early goal commitment. Certain groups of students demonstrated a stronger institutional commitment because of the inability to attend out-of-area or more expensive institutions. In terms of social integration for community college students, the researchers found social support to be

important. Negative events, arising from conflicts within other institutional systems, had a negative impact on persistence. By using a multi-campus design including one large, one medium, and one small institution, the researchers were able to examine the effects of campus size on integration. They uncovered support for their prediction that social integration would be positively linked to campus size. Size was significantly and directly linked to social integration. When controlling for other factors, students who attended the larger campuses reported significantly higher social integration. Thus, campus size had a significant indirect effect on persistence through social integration. The researchers also investigated academic integration and found that student characteristics impacted academic integration, as did positive encounters with the systems of the college. In terms of persistence, negative school events had the strongest effect on attrition. Their findings also underscored the importance of external forces on community college persistence, pointing to the fact that students were faced with conflicting responsibilities.

BEAN'S STUDENT ATTRITION MODEL

In addition to the studies previously explored, a thorough review of student retention literature should focus considerable attention on the work of Bean and associates (1983, 1985, 1990, 1993). Bean's (1983) early student attrition model shared some similarities with those already discussed in that he focused on institutional fit and commitment. His model examined the behaviors and attitudes associated with student satisfaction. He introduced the concept of intent, contending that there was a relationship between a student's intentions and subsequent behavior. He found intention to leave was a highly predictive factor associated with a student's actual decision to leave.

What differentiated Bean's model from other earlier models was his focus on the external factors and the role they play in affecting student attitudes and decisions. Of particular interest to community college researchers is his development of a conceptual model of attrition for non-traditional students (Bean & Metzner, 1985). The researchers applied the work of Tinto and others when they questioned whether the integration principles outlined by other researchers could be applied equally to all students. They hypothesized that the experiences of older, part-time students were not clearly explained by existing models. They proposed that, in the cases of non-traditional students, the external environment would impact persistence behaviors more than social integration variables. The study focused on the attrition process of non-traditional students, defined as students who were twenty-four years of age or older, were commuters, were part-time, or a combination of any of these three factors. Bean and Metzner (1985) found non-traditional students were more affected by the external environment and less affected by social integration. While the researchers did not study community college students, specifically, their findings have important implications for community college scholars. A large number of community college students fit the description of commuter students. Twenty-six percent of community college students are over the age of twenty-four, one-third of them work full-time and one-fifth of them have dependents (Coley, 2000). Bean (1990) used the term "environmental pull," to describe external factors which draw an individual away from college and affect the level of social and academic integration.

More recently, Eaton and Bean (1993) introduced psychological principles previously ignored in attrition models. The researchers argued research focused on the general socialization process in college and ignored the specific attributes of the

individuals involved in the process. Their study looked specifically at the influence of coping behaviors, or students' abilities to adapt to the social and academic demands of college. The study uncovered new findings suggesting that behavioral characteristics were related to attrition by their effects on academic and social integration. Also, the researchers found that components of both academic and social behavior contributed to students' perception of academic satisfaction suggesting there was a reciprocal relationship between academic and social integration. Academic integration was influenced by both academic and social factors. The findings suggested that the processes of academic and social integration were more complex than depicted in earlier models.

TARGET POPULATIONS

The broad theoretical models that were previously explored have served as the basis for a number of subsequent inquiries. In line with the previous studies and findings that suggest the factors that contribute to student success may be different for different groups of students, researchers have targeted specific groups for more in-depth analysis. The studies reviewed in this section not only recognize that specific characteristics may render an individual more susceptible to leaving, but also examine the experiences of those students to improve our understanding of the reasons they persist. The studies help to fill a gap identified by Dungy (1999): "There is a need for research on who these students are, what they want, and how best to help them close the gap between their potential and eventual success as they define it" (p. 36).

Like this study, Bilsky (2000) also looked at the differences in the experiences of select demographic groups. Specifically, the researcher investigated whether student satisfaction at a single institution in Florida was the same for all students. Bilsky argued that defining students as a homogeneous group who experience the collegiate environment in the same way is misleading. By disaggregating student satisfaction data, the researcher sought to better understand the perceptions of different groups of students. Using data from an institutional administration of the Student Satisfaction Survey, Bilsky compared the satisfaction levels and perceptions of different groups including males and females, different racial/ethnic groups, full and part time students, and different age groups. As the result of a series of group comparisons, she found notable differences among groups leading to a recommendation that the findings should serve as the basis for the development of different institutional practices.

Turner (2003) conducted a single institution qualitative study to analyze the factors that contributed to persistence in African American students. By focusing on the experiences of students who were successful, the researcher identified five common factors that contributed to the students' success. Among them were access to college resources, campus climate, interaction with faculty and staff, inner determination, and family.

Brinkerhoff (2000) investigated adult undergraduate student success to assess the role that student-faculty interaction played. The researcher identified two separate themes. Consistent with the models already reviewed, commitment to goal was important to adult learners. In addition, support from family was instrumental to students' success. Commitment to goal centered on external and internal rewards. Some

students experienced greater goal commitment as the result of the probability of external rewards like financial security and career advancement. Students also relayed the importance of an internal commitment to goal completion. To adult learners, support from family was the most highly related factor that contributed to student persistence. The students identified interaction with faculty as an important theme, specifically referring to faculty within the students' departments. This supported the findings of Astin (1993), who argued that community colleges with high retention rates capitalized on the powerful bonds that developed among faculty and students within an educational program. With the same faculty teaching the courses and handling advising activities, students generally formed a strong sense of community.

Thomas (1997) focused on first generation community college students to determine the reasons the students persisted. From his findings, he identified two common categories of factors that supported retention: institutional and personal. Institutional factors included a supportive environment, instructors, curriculum, staff, and services. Personal factors included support from parents, peers, a community-based network, clear goals, and determination.

STUDENT ENGAGEMENT

Much of the recent research on student persistence and goal completion is based upon the broad theories previously discussed. While there is considerable variance on certain points, one consistent theme emerges: Enrollment patterns and decisions are generally shaped by a series of interconnected constructs, which Pascarella and Terenzini

(2005) portray as academic and social engagement, or the extent to which students are involved or integrated into the campus environment and its systems.

Kuh, Kinzie, Schuh and Whitt (2005) define student engagement in two parts. First, it is the amount of time and energy students devote to the educational practices that lead to desired educational outcomes. Second, it is the manner in which the institution allocates resources and organizes educational programs and services to facilitate participation and positive outcomes. The authors refer to the "Seven Principles for Good Practice in Undergraduate Education" (Chickering & Gamson, 1987) as examples of engagement indicators. The list of principles includes student-faculty contact, cooperation among students, active learning, prompt feedback, time on task, high expectations, and respect for diverse talents and ways of learning. However specifically defined, student engagement encompasses the various processes that are linked to increased learning and educational attainment.

Within the community college environment, understanding and measuring the construct of student engagement is essential:

> Research shows that the more actively engaged students are – with college faculty and staff, with other students, and with the subject matter they study – the more likely they are to learn, to stick with their studies, and to attain their academic goals. Student engagement, therefore, is a valuable yardstick for assessing the quality of colleges' educational practices and identifying ways they can produce more successful results – more students across all subgroups learning at higher levels and attaining their academic goals (CCSSE, 2006, p. 4).

The use of the CCSR as a valid tool for measuring the processes that impact positive educational outcomes was supported by the findings of a three-pronged research project. The studies, which looked at three separate and independent samples of

community college students, examined the relationship between student engagement and educational outcomes by linking findings from the CCSR to external data sources including data from the Florida Department of Education, data from the Achieving the Dream project, and select student record databases. Overall, the findings supported previous research linking student engagement to positive educational outcomes. Consistent across all three data sources, the project revealed strong support for the validity of the CCSR as a measure of variables that impact student outcomes (McClenney & Marti, 2006). Greene's (2005) findings provided additional support for the notion that there is a relationship between student engagement, as measured by the CCSR, and desired educational outcomes.

SUMMARY AND DISCUSSION

The large body of research on student persistence and success revealed some very clear findings. First, descriptive research studies demonstrated that student characteristics impacted the probability of student persistence and success. Second, the retention models that were reviewed revealed unequivocal support for the idea that certain longitudinal variables were connected with the retention of all students; however, the relative importance of each variable was different among institutional and student types. Third, the studies underscored the importance that understanding the perceptions and experiences of different student groups has on the development of effective retention practices, programs, and policies.

The identification of student characteristics known to be associated with an individual's likelihood of completing educational goals is particularly important to leaders of community colleges where a commitment to open access prevails. Community

colleges will continue to serve students from varying backgrounds as well as those who bring a diverse mix of intentions and goals. The knowledge of the risk factors associated with particular student or institutional variables facilitates the development of programs and practices tailored to the needs of community college students.

The processes that emerge once a student sets foot on campus are critical to the student's eventual success. Studies repeatedly affirmed the finding that student-institutional fit was an important determinant of persistence for all students. Researchers used the terms "involvement" and "integration" to describe the relationship between the student and the institution. Research showed that students who were involved with the life of the college and who had significant contact with other members of the college's community were more likely to persist. In other words, students who achieved sufficient levels of academic and social integration increased their chances of success. When these ideas were applied to a community college setting, the primary difference was the manner in which involvement and integration occurred. In contrast to four-year, residential students, community college students were much less likely to spend time on campus outside of the fulfillment of academic responsibilities. In addition, they experienced more "environmental pull," produced by complex and often conflicting external demands. As a result, the classroom environment was viewed as the catalyst for initiating involvement and integration on community college campuses. Astin (1993) observed learning and success were enhanced when students were placed in situations in which they shared in the development of knowledge in a constructive and connected manner (Astin, 1993). Positive classroom experiences also determined the degree to which students sought out additional interaction with faculty and students outside the classroom

(Tinto, 1993), which is essential to students' individual judgments of intellectual congruence (Pascarella & Terenzini, 1991). Collectively, the research places the utmost importance on the community college's educational practices. A thorough evaluation of an institution's learning environment, particularly as it pertains to the inclusion of empirically derived practices, can yield valuable results.

Studies of target populations indicated that students perceived and experienced the collegiate environment differently. As more institutions evaluate student learning and engagement, it becomes increasingly important to disaggregate the data for different student groups. This will enable researchers and practitioners alike to generate a clearer evaluation of the educational environments and practices that exist. This evaluation can then drive the changes that are needed to encourage and support the success of all students.

Despite the disproportionately low success rates of community college students overall, there is empirical support for the ideal that community colleges can transcend the aforementioned challenges. Roueche (2004) described the findings from two in-depth case studies that revealed impressive outcomes with regard to the success of students. He remarked, "The illusion of magic that pervades those institutions is very explainable through logical, rational, and common sense approaches to student success and quality service to community" (p. 4). Other institutional leaders can and should share in the success by doing what McClenney (2004a) refers to as building a "culture of evidence" with regard to their own institutions to assist them in identifying critical performance indicators, assessing institutional performance, and guiding targeted improvements.

Chapter Three: Methodology and Procedures

INTRODUCTION

This chapter will outline the research methodology and specific procedures that were used to carry out the study. The primary goal of the researcher was to further the understanding of the experiences of students enrolled in small community colleges. Specifically, the researcher examined the self-reported differences in the engagement patterns of students enrolled primarily in day and in evening courses.

The study was guided by the following research questions:

1. Are there differences in the experiences of students attending small community colleges based upon their primary enrollment in day or in evening courses with regard to the following five benchmarks:

- Active and Collaborative Learning
- Student Effort
- Academic Challenge
- Student-Faculty Interaction
- Support for Learners

2. Are there differences in the experiences of students attending small community colleges based upon their primary enrollment in day or in evening courses with regard to the following nine factors:

- Faculty Interactions
- Class Assignments
- Exposure to Diversity

- Collaborative Learning
- Information Technology
- Mental Activities
- School Opinions
- Student Services
- Academic Preparation

3. If differences were determined to exist, were they sustained in the presence of appropriate statistical controls?

RESEARCH DESIGN

The research design was quantitative in nature, utilizing data generated from the CCSR. These data were ideal for this study because the survey was designed to measure the extent to which students are engaged in positive and meaningful educational practices that impact student learning and success. Data were gathered across multiple institutions employing standardized sampling and administration procedures, thus providing an unprecedented opportunity to gather and analyze information about the experiences of a broad representation of community college students (Marti, in press). The quantitative methodology was appropriate for the study because it allowed the researcher to measure multiple variables and perform statistical analyses to provide answers to the questions under investigation (Pedhazur & Schmelkin, 1991).

The primary independent variable, time of enrollment, was categorical, and included two categories - day and evening. The dependent variable, student engagement, was continuous. The specific dimensions of student engagement that were examined in

the study included nine factors, which represent empirically linked item clusters from the CCSR, as well as five CCSSE benchmarks, which provide logical structure for additional data analysis and application.

McClenney and Marti (2006) provide definitions of the fourteen student engagement constructs or dimensions considered in the study. The nine engagement factors derived from the CCSR item clusters include the following:

Faculty Interactions – Comprised of six survey items. A four-item response scale (never, sometimes, often, very often) is used for the following items: asked questions in class or contributed to class discussions; discussed grades or assignments with an instructor; talked about career plans with an instructor or advisor; discussed ideas from your readings or classes with instructors outside of class; received prompt feedback (written or oral) from instructors on your performance; worked with instructors on activities other than coursework.

Class Assignments – Comprised of three survey items. A four-item response scale (never, sometimes, often, very often) is used for the following items: made a class presentation; prepared two or more drafts of a paper or assignment before turning it in; worked on a paper or project that required integrating ideas or information from various sources.

Exposure to Diversity – Comprised of three survey items. A four-item response scale (never, sometimes, often, very often) is used for the following items: discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.); had serious conversations with students of a different race or

ethnicity other than your own; had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values.

Collaborative Learning – Comprised of four survey items. A four-item response scale (never, sometimes, often, very often) is used for the following items: worked with other students on projects during class; worked with classmates outside of class to prepare class assignments; tutored or taught other students (paid or voluntary); participated in a community-based project as a part of a regular course.

Information Technology – Comprised of two survey items. A four-item response scale (never, sometimes, often, very often) is used for the following items: used the Internet or instant messaging to work on an assignment; used email to communicate with an instructor.

Mental Activities – Comprised of six survey items. A four-item response scale (never, sometimes, often, very often) is used for the following item: worked harder than you thought you could to meet an instructor's standards or expectations. A four-item response scale (very little, some, quite a bit, very much) is used for the following mental activity items: analyzing the basic elements of an idea, experience, or theory; synthesizing and organizing ideas, information, or experience in new ways; making judgments about the value or soundness of information, arguments, or methods; applying theories or concepts to practical problems or in new situations; using information you have read or heard to perform a new skill.

School Opinions – Comprised of six survey items. A four-item response scale (very little, some, quite a bit, very much) is used for the following items: encouraging you to spend significant amounts of time studying; providing the support you need to

help you succeed at this college; encouraging contact among students from different economic, social, and racial and ethnic backgrounds; helping you cope with your non-academic responsibilities (work, family, etc.); providing the support you need to thrive socially, providing the financial support you need to afford your education.

Student Services – Comprised of five survey items. A four-item response scale (don't know/N.A., rarely/never, sometimes, often) is used for the following items: frequency: academic advising/planning; frequency: career counseling; frequency: peer or other tutoring; frequency: skill labs (writing, math, etc.); frequency: computer lab.

Academic Preparation – Comprised of four survey items. A five-item response scale (none, between 1 and 4, between 5 and 10, between 11 and 20, more than 20) is used for the following items: number of assigned textbooks, manuals, books, or book-length packs of course readings; number of written papers or reports of any length. A seven-item response scale (ranging from 1 to 7, with scale anchors defined: 1 – extremely easy and 7 – extremely challenging) is used for the following item: mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work at this college. A six-item response scale (none, 1-5 hours, 6-10 hours, 11-20 hours, 21-30 hours, more than 30 hours) is used for the following item: preparing for class (studying, reading, writing, rehearsing, doing homework, or other activities related to your program).

The five constructs derived from CCSSE benchmarks are:

Active and Collaborative Learning – Comprised of seven survey items. A four-item response scale (never, sometimes, often, very often) applies to the following items: asked questions in class or contributed to class discussions; make a class presentation;

worked with other students on projects during class; worked with classmates outside of class to prepare class assignments; tutored or taught other students (paid or voluntary); participated in a community-based project as a part of a regular course; discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

Student Effort – Comprised of eight survey items. A four-item response scale (never, sometimes, often, very often) applies to the following items: prepared two or more drafts of a paper or assignment before turning it in; worked on a paper or project that required integrating ideas or information from various sources; come to class without completing readings or assignments. A five-item response scale (none, between 1 and 4, between 5 and 10, between 11 and 20, more than 20) is used for the following item: number of books read on your own (not assigned) for personal enjoyment or academic enrichment. A six-item response scale (none, 1-5 hours, 6-10 hours, 11-20 hours, 21-30 hours, more than 30 hours) is used for the following item: preparing for class (studying, reading, writing, rehearsing, doing homework, or other activities related to your program). A four-item response scale (don't know/N.A., rarely/never, sometimes, often) is used for the following items: frequency: peer or other tutoring; frequency: skill labs (writing, math, etc.); frequency: computer lab.

Academic Challenge – Comprised of ten survey items. A four-item response scale (never, sometimes, often, very often) is used for this item: worked harder than you thought you could to meet an instructor's standards or expectations. A four-item response scale (very little, some, quite a bit, very much) is used for the following items: analyzing the basic elements of an idea, experience, or theory; synthesizing and

organizing ideas, information, or experiences in new ways; making judgments about the value or soundness of information, arguments, or methods; applying theories or concepts to practical problems or in new situations; using information you have read or heard to perform a new skill. A five-item response scale (none, between 1 and 4; between 5 and 10; between 11 and 20; more than 20) is used for the following items: number of assigned textbooks, manuals, books, or book-length packs of course readings; number of written papers or reports of any length. A seven-item response scale (ranging from 1 to 7, with scale anchors defined: 1 – extremely easy and 7 – extremely challenging) is used for the following item: mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work at this college. A four-item response scale (very little, some, quite a bit, very much) is used for the following item: encouraging you to spend significant amounts of time studying.

Student-Faculty Interaction – Comprised of six survey items. A four-item response scale (never, sometimes, often, very often) is used for the following items: used email to communicate with an instructor; discussed grades or assignments with an instructor; talked about career plans with an instructor or advisor; discussed ideas from your readings or classes with instructors outside of class; received prompt feedback (written or oral) from instructors on your performance; worked with instructors on activities other than coursework.

Support for Learners – Comprised of seven survey items. A four-item response scale (very little, some, quite a bit, very much) is used for the following items: providing the support you need to help you succeed at this college; encouraging contact among students from different economic, social, and racial or ethnic backgrounds; helping you

cope with your non-academic responsibilities (work, family, etc.); providing the support you need to thrive socially; providing the financial support you need to afford your education. A four-item response scale (don't know/N.A., rarely/never, sometimes, often) is used for the following items: frequency: academic advising/planning; frequency: career counseling.

It should be noted that the nine item clusters and five benchmarks are non-orthogonal. Both sets of constructs use largely the same items; however, the engagement item clusters use a larger number of factors and are conducive to a finer grained examination of engagement items (McClenney & Marti, 2006). For the purposes of the study, all fourteen variables were considered.

DESCRIPTION OF SAMPLE

Participation in the study was limited to students who met the following criteria: 1) enrollment in a small community college or one that enrolled 4,500 or fewer students; 2) participation in the 2005 administration of the Community College Student Report; 3) completion of all survey items relevant to the study.

Participants in the study were community college students whose institutions were members of CCSSE in 2005. The participants were selected to complete the Community College Student Report based upon the sampling techniques employed by CCSSE. Member colleges were required to submit an electronic file containing a list of all credit courses offered during the spring 2005 term with the exception of non-credit, dual-enrollment, distance learning, lower level ESL courses, labs, individualized instruction, and self-paced courses. CCSSE staff used each institution's file to create selected course

samples for each institution. A stratified random sampling technique was used with individual classes as the sampling unit. The stratification variable was class start time to ensure that sampled classes were representative of morning, afternoon, and evening classes. The sampling methodology was consistent across all member institutions and the target sample size was based upon the enrollment category. CCSSE sample size ranged from 600 students per institution for small colleges to 1500 students per institution for large colleges. Factoring in non-participation, each college was asked to survey 160% of its target sample size (CCSSE, n.d.). For the purposes of this study, the researcher obtained a random sample of 5,000 survey responses. After excluding cases for non-completion of relevant survey items, data analysis was performed on 4,825 survey responses.

PROCEDURES AND DATA COLLECTION

Data to support the study was obtained from CCSSE. The researcher followed the established protocol to request data from the 2005 administration of the CCSR for students previously identified.

The CCSR was adapted, with permission, from the National Survey of Student Engagement for use in the community college milieu. A high degree of intentional overlap between the two instruments exists. In 2003, 56 items that appeared on the CCSR were derived from NSSE, representing a 71 percent overlap (Marti, in press). In providing an overview of the CCSR psychometric properties, Marti (in press) cited extensive research demonstrating the validity and reliability of the instruments used by both NSSE and CCSSE.

The CCSR consists of five series of items that pertain to time spent engaging in activities that research has connected to positive educational outcomes. The five series of items include:

1. College Activities – Items assess the frequency of contacts with instructors and other students as well as time spent engaging in various specified classroom activities. Within this category, participants are asked to indicate the frequency with which they ask questions in class, work with classmates inside and outside of class, and talk to instructors about grades and career plans.
2. Mental Activities – Items measure the extent to which course-related activities require students to engage in analysis and critical thinking.
3. Academic Preparation – Items assess the amount of time spent completing reading and writing assignments required in courses as well as the amount of time reading non-required literature.
4. College Opinions – Items measure the extent to which colleges provide and foster a supportive learning environment. Items ascertain students' exposure to diverse backgrounds as well as perceptions of social and financial support systems.
5. Student Services – Items solicit input on the frequency of use of a series of academic support services including academic advising, career counseling, and academic tutoring. Participants also rate satisfaction and relative importance associated with each service.

In addition to the series of items described above, the Community College Student Report includes 15 educational and personal growth items to assess the degree to which the college experience contributed to students' development. Additional questions are

designed to collect information on educational goals and involvement in other educational experiences. Finally, questions that gather demographic information make it possible to make comparisons between student sub-groups (Marti, in press).

The Community College Student Report is a paper-pencil instrument that is administered annually to students in the selected classes during March or April. Administration during the scheduled class times ensures a high and systematically unbiased response rate.

DATA ANALYSIS

Data analysis was conducted using a series of statistical procedures. To test the first two questions proposed by the study, the researcher used an independent samples t-test to compare the means of the responses of day and evening students on each of the fourteen dependent or engagement variables. The means for each benchmark or factor were derived from student responses to the items that comprised the engagement benchmark or factor. The engagement benchmark scores were standardized, with a mean of 50. The items that comprised the engagement factor scores were rescaled prior to averaging on a scale where the lowest value was 0 and the highest was 1.

The next step involved using descriptive statistics to compare day and evening students with control variables that were introduced to address the third question. Specifically, the researcher introduced the following variables as statistical controls to determine whether the results of the initial analysis would be sustained when controlling for these student characteristics: enrollment status, number of credit hours earned at the institution, children living at home, age, gender, marital status, native language, and race.

These control variables were derived from survey items. A step-wise regression approach, employing coding procedures, was used to complete the final analyses. This enabled the researcher to identify the unique and interrelated effects of the variables. The researcher used SPSS to perform all statistical operations (Pedhazur & Schmelkin, 1991).

SUMMARY

The methodological procedures described in this chapter were appropriate for this quantitative study and generated data to support the findings that will be presented in Chapter Four and summarized in Chapter Five.

Chapter Four: Results and Findings

INTRODUCTION

The purposes of this study were to determine if there is a difference in the level of engagement experienced by students attending small community colleges based upon their time of enrollment and to investigate whether those differences would be sustained when controlling for additional student variables. To complete the analysis, the researcher utilized data from the Community College Student Report, a survey designed to measure the experiences of students enrolled in community colleges. Responses from 4,825 students who met the criteria outlined in Chapter Three were included in the data set.

LEVEL ONE ANALYSIS

Within the first level of data analysis, the researcher performed an independent samples t-test to compare the means of survey responses for day and evening students in five key areas of student engagement. These five benchmarks, each of which is comprised of a series of linked survey items, include active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support for learners.

Table 1: Comparison of Day and Evening Students – Student Engagement Benchmarks

Engagement Benchmark	Mean for Day Students	Mean for Evening Students	Mean Difference	SD for Day Students	SD for Evening Students	t	Sig.
Support for Learners	56.0	51.0	5.0	26.3	25.8	5.5	.00
Academic Challenge	54.1	49.4	4.7	24.8	25.8	5.2	.00
Student-Faculty Interaction	55.9	51.7	4.2	26.5	25.6	4.6	.00
Student Effort	53.8	49.6	4.2	24.2	25.1	4.7	.00
Active and Collaborative Learning	54.4	51.2	3.2	25.7	25.2	3.6	.00

As reported in Table 1, day students, without exception, reported significantly higher levels of engagement than their evening counterparts. For the purpose of data analysis, each composite benchmark variable was standardized, with a mean of 50. Of the five areas under comparison, the largest difference occurred in support for learners, where the mean difference was 5.0. The second largest difference was reported in the academic challenge area, with a mean difference of 4.7. The mean difference between day and evening students with regard to student-faculty interaction and student effort was 4.2. The smallest difference between the two groups occurred in active and collaborative learning, where the mean difference was 3.2.

The second step was to perform an independent samples t-test to determine whether there is a significant difference in the experiences of day and evening students with regard to nine engagement factors including faculty interactions, class assignments, exposure to diversity, collaborative learning, information technology, mental activities, school opinions, student services, and academic preparation.

Table 2: Comparison of Day and Evening Students – Student Engagement Factors

Engagement Factor	Mean for Day Students	Mean for Evening Students	Mean Difference	SD for Day Students	SD for Evening Students	t	Sig.
Student Services	.399	.352	.047	.24	.26	5.3	.00
School Opinions	.52	.475	.045	.23	.22	5.7	.00
Academic Preparation	.523	.479	.044	.16	.17	7.5	.00
Exposure to Diversity	.493	.45	.043	.26	.26	4.7	.00
Collaborative Learning	.277	.242	.035	.18	.17	5.7	.00
Information Technology	.522	.488	.034	.29	.30	3.4	.00
Class Assignments	.491	.461	.03	.24	.26	3.5	.00
Faculty Interactions	.433	.409	.024	.19	.18	3.6	.00
Mental Activities	.561	.539	.022	.22	.22	2.9	.00

The items that comprise the composite engagement factor variables were rescaled prior to averaging their values so that the lowest value on the scale is 0 and the highest value is 1. As reported in Table 2, day students experienced significantly higher levels of engagement with regard to each of the nine student engagement factors. This difference was most pronounced in student services where the mean difference was .047. In the next three areas, school opinions, academic preparation, and exposure to diversity, the mean differences were .045, .044, and .043, respectively. In the area of collaborative learning, the mean difference between the responses of day and evening students was .035. With regard to information technology, the difference was .034. The next highest difference was reported in class assignments, where the mean difference was .03. The areas in which the smallest differences were reported were faculty interactions and mental activities, at .024 and .022 respectively.

Within the first level of data analysis, the researcher determined there is a significant difference in the experiences of students enrolled in small community colleges based upon their primary time of enrollment. Without exception, day students are more engaged with regard to each of the variables under investigation. The next level of analysis required the researcher to introduce a series of statistical controls to determine whether the differences in engagement were attributable to time of enrollment as opposed to other student variables.

LEVEL TWO ANALYSIS

Within the second level of analysis, the researcher's intent was to determine whether the significant differences between day and evening students that were found in

each of the five engagement benchmarks and nine engagement factors would be sustained when considering additional student variables. The first step in this analytical process was to create a series of contingency tables comparing time of enrollment and each of the eight student variables.

Student Variable One: Enrollment Status

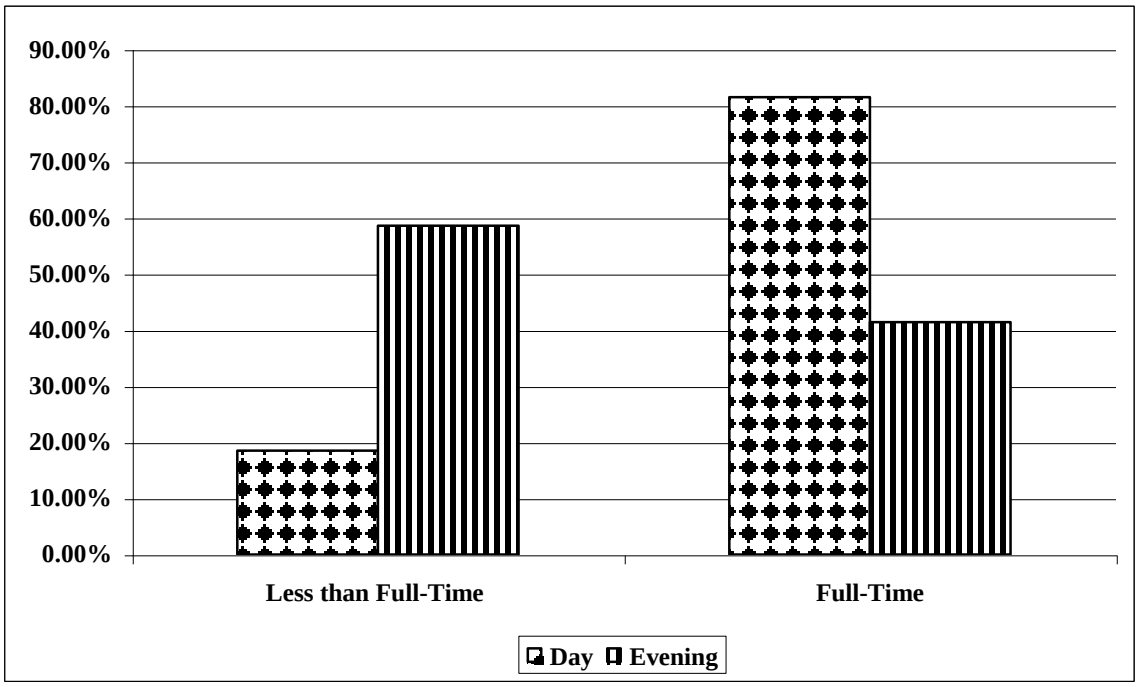
With regard to the first of eight student variables, enrollment status, data analysis revealed a significant difference in the percentages of day and evening students by full-time or less than full-time enrollment. Specifically, as outlined in the table below, day students were twice as likely to be enrolled full-time than evening students. Evening students were three times more likely to be enrolled less than full-time than day students. Figure 1 provides a graphic presentation of these findings.

Table 3: Cross Tabulation between Time of Enrollment and Enrollment Status

	Day Students	**Evening Students**	**Total**
Less than Full-Time	702 18.5%	598 58.6%	1300 26.9%
Full-Time	3102 81.5%	423 41.4%	3525 73.1%
Total	3804 100.0%	1021 100.0%	4825 100.0%

Pearson Chi Square – 658.099b, Sig. = .000

Figure 1: Time of Enrollment and Enrollment Status



Student Variable Two: Number of Credit Hours Earned at Institution

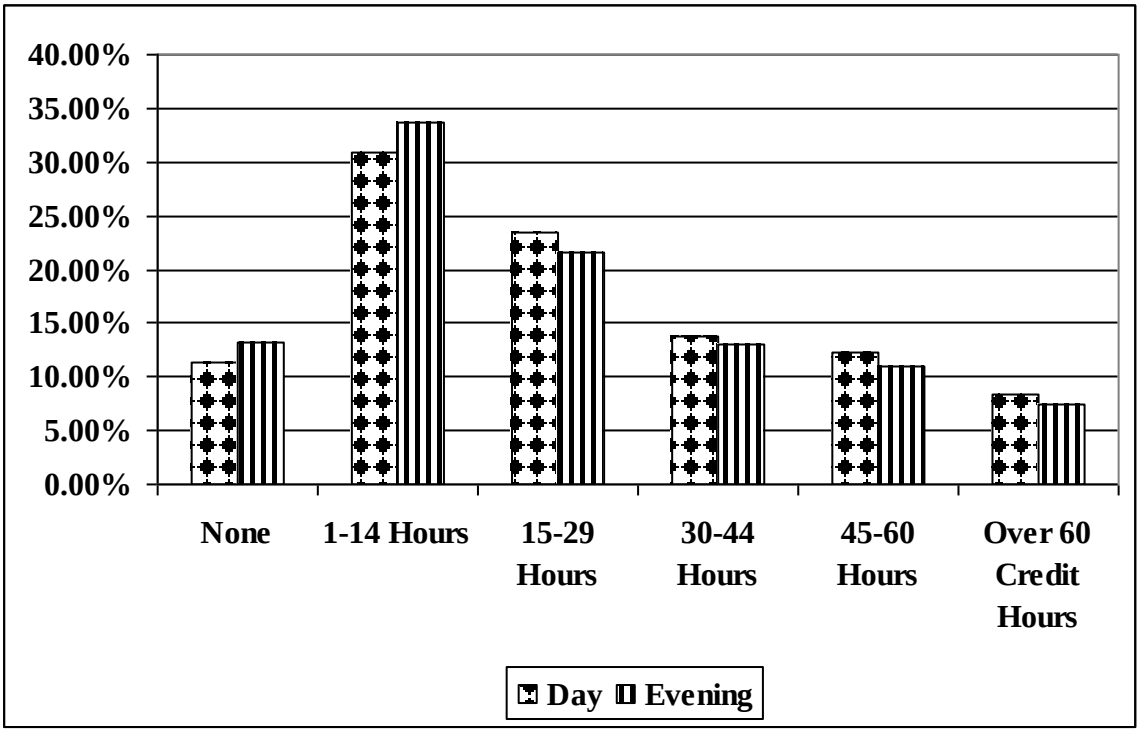
When asked to report the number of credit hours previously earned at the institution, there was not a significant difference in the percentages of day and evening students with regard to the number of credits earned. These findings are outlined in Table 4 and Figure 2 below.

Table 4: Cross Tabulation between Time of Enrollment and Number of Credit Hours Earned at Institution

	Day Students	Evening Students	Total
None	427 11.3%	135 13.3%	562 11.7%
1-14	1168 30.9%	343 33.7%	1511 31.5%
15-29	891 23.5%	219 21.5%	1110 23.1%
30-44	520 13.7%	133 13.1%	653 13.6%
45-60	460 12.2%	111 10.9%	571 11.9%
Over 60 Credits	318 8.4%	76 7.5%	394 8.2%
Total	3784 100.0%	1017 100.0%	4801 100.0%

Pearson Chi Square – 8.345a, Sig. = .138

Figure 2: Time of Enrollment and Number of Credit Hours Earned at Institution



Student Variable Three: Children Living at Home

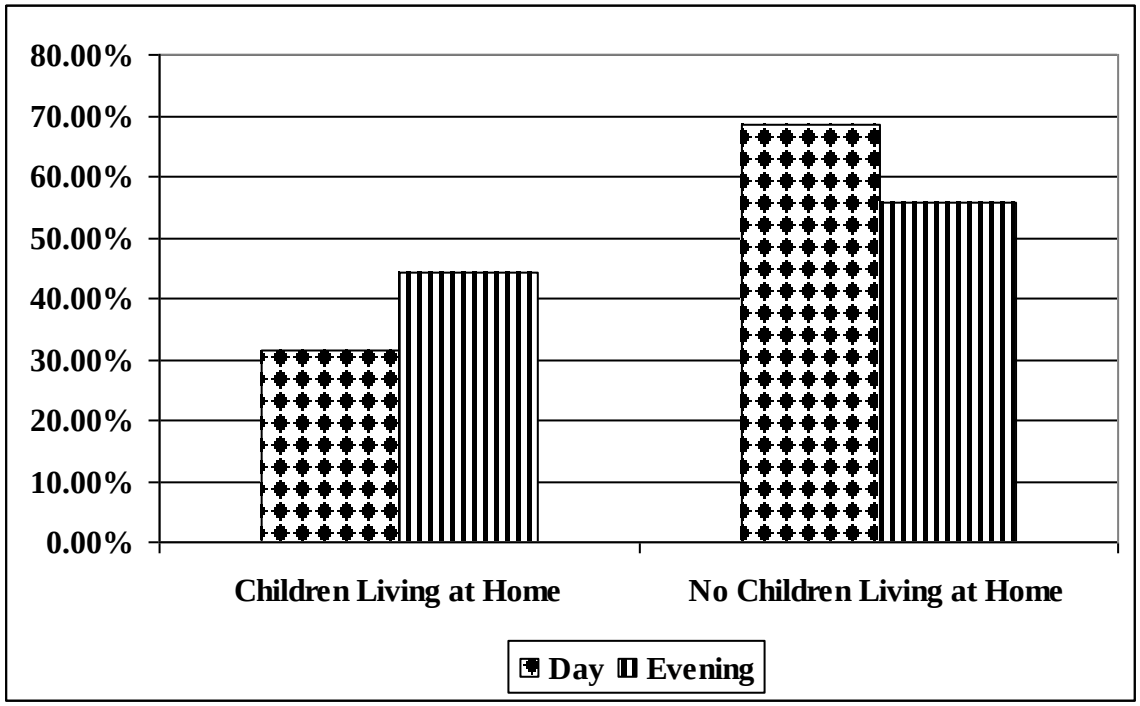
The percentages of day and evening students who reported having children living at home were significantly different. As outlined in Table 5, evening students were more likely to have children living at home. Day students were significantly more likely to report no children living at home. These findings are presented in Figure 3 below.

Table 5: Cross Tabulation between Time of Enrollment and Children Living at Home

	Day Students	Evening Students	Total
Have Children Living at Home	1184 31.4%	449 44.2%	1633 34.2%
Do Not Have Children Living at Home	2581 68.6%	566 55.8%	3147 65.8%
Total	3765 100.0%	1015 100.0%	4780 100.0%

Pearson Chi-Square – 58.136b, Sig. = .000

Figure 3: Time of Enrollment and Children Living at Home



Student Variable Four: Age of Student

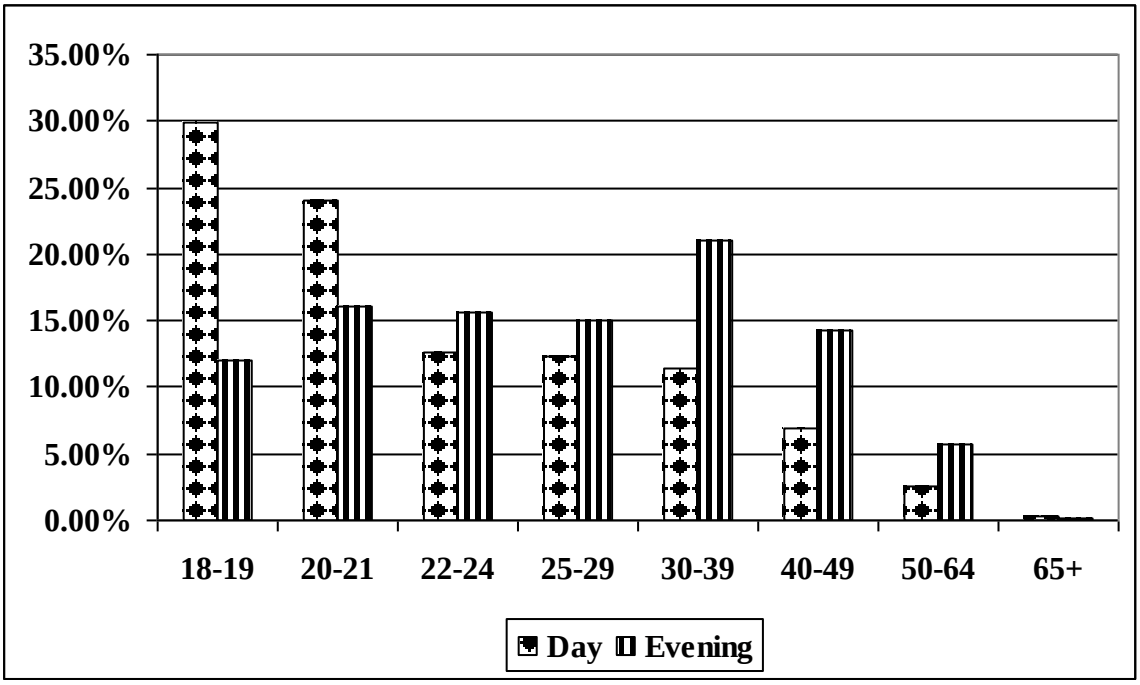
With regard to the fourth student variable, age, data analysis indicated a significant relationship between students' primary time of enrollment, day or evening, and their age. Day students were two and a half times more likely to fall into the 18 to 19 category than evening students. In contrast, evening students were approximately two times as likely to be between 30 and 64. These findings are outlined in Table 6 and Figure 4 below.

Table 6: Cross Tabulation between Time of Enrollment and Age of Student

	Day Students	Evening Students	Total
18-19	1123 29.9%	121 12%	1244 26.1%
20-21	902 24%	162 16.1%	1064 22.4%
22-24	474 12.6%	157 15.6%	631 13.3%
25-29	460 12.3%	151 15.0%	611 12.8%
30-39	429 11.4%	212 21.1%	641 13.5%
40-49	259 6.9%	143 14.2%	402 8.4%
50-64	96 2.6%	57 5.7%	153 3.2%
65+	11 .3%	2 .2%	13 .3%
Total	3754 100.0%	1005 100.0%	4759 100.0%

Pearson Chi-Square – 258.776a, Sig. = .000

Figure 4: Time of Enrollment and Age of Student



Student Variable Five: Gender of Student

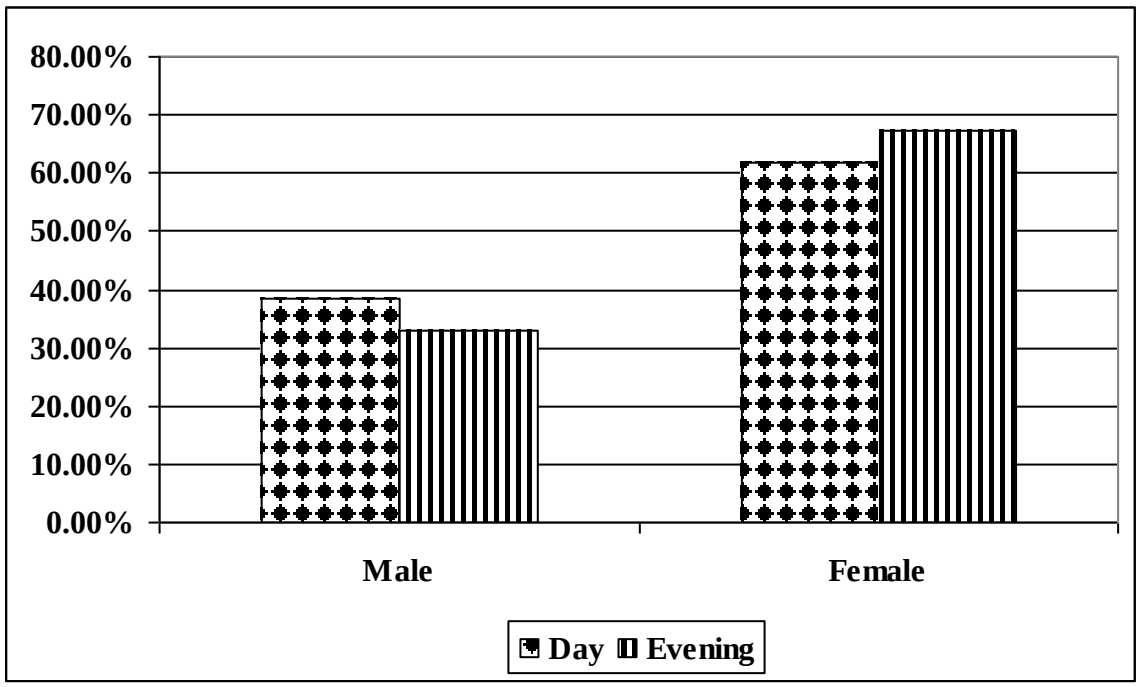
When comparing day and evening students with regard to gender, there was a significant difference. A higher percentage of day students were male and a higher percentage of evening students were female. These findings are presented in Table 7 and Figure 5 below.

Table 7: Cross Tabulation between Time of Enrollment and Gender of Student

	Day Students	Evening Students	Total
Male	1444 38.3%	334 32.8%	1778 37.2%
Female	2322 61.7%	683 67.2%	3005 62.8%
Total	3766 100.0%	1017 100.0%	4783 100.0%

Pearson Chi-Square – 10.377b, Sig. = .001

Figure 5: Time of Enrollment and Gender of Student



Student Variable Six: Marital Status of Student

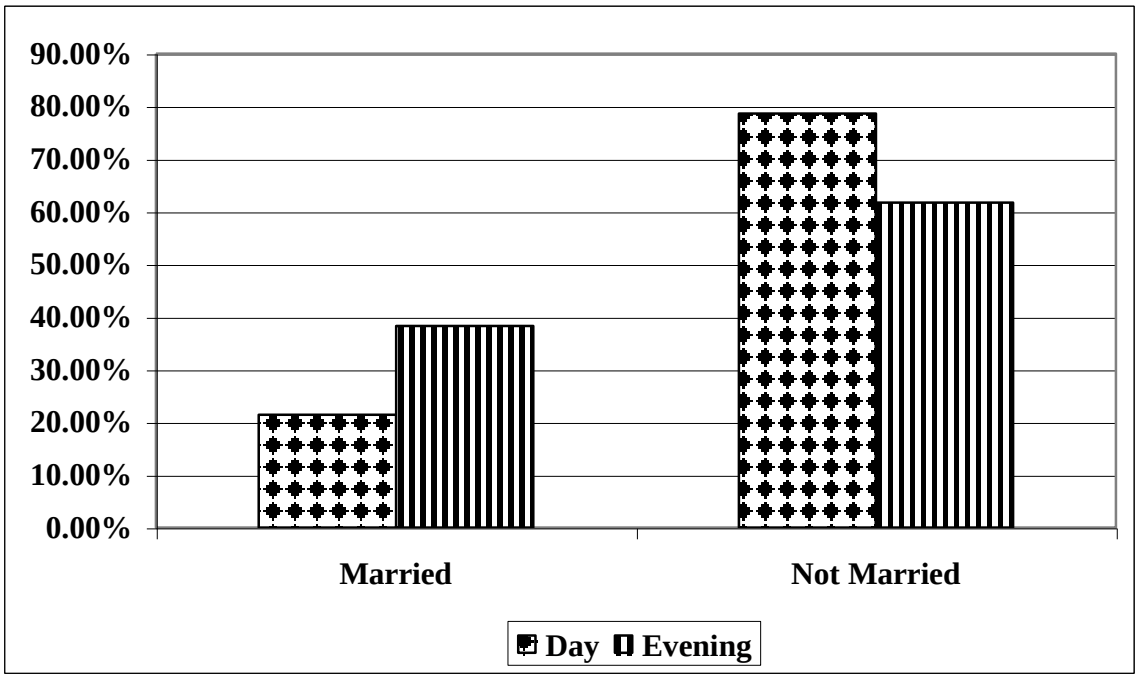
Data analysis revealed a significant difference in the percentages of day and evening students who reported being married. Specifically, as shown in the table below, evening students were almost twice as likely to be married than day students. These findings are presented graphically in Figure 6.

Table 8: Cross Tabulation between Time of Enrollment and Marital Status of Student

	Day Students	**Evening Students**	**Total**
Married	806 21.4%	389 38.3%	1195 25.0%
Not Married	2962 78.6%	627 61.7%	3589 75.0%
Total	3768 100.0%	1016 100.0%	4784 100.0%

Pearson Chi-Square – 121.916b, Sig. = .000

Figure 6: Time of Enrollment and Marital Status of Student



Student Variable Seven: Native Language of Student

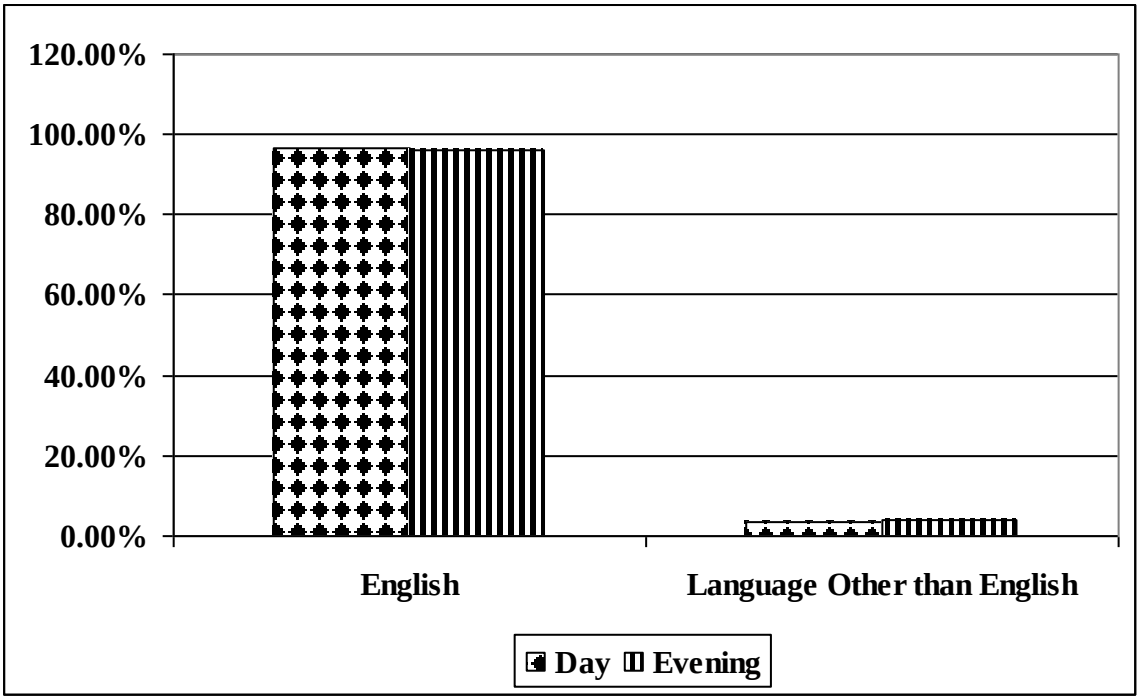
Findings with regard to the seventh variable, native language of students, did not reveal significant differences between day and evening students. There were only slight differences between the percentages of day and evening students who indicated English or a language other than English as their native language. These findings are presented in Table 9 and Figure 7 below.

Table 9: Cross Tabulation between Time of Enrollment and Native Language of Student

	Day Students	Evening Students	Total
English	3632 96.4%	974 95.9%	4606 96.3%
Language Other than English	137 3.6%	42 4.1%	179 3.7%
Total	3769 100.0%	1016 100.0%	4785 100.0%

Pearson Chi-Square - .553b, Sig. = .457

Figure 7: Time of Enrollment and Native Language of Student



Student Variable Eight: Race of Student

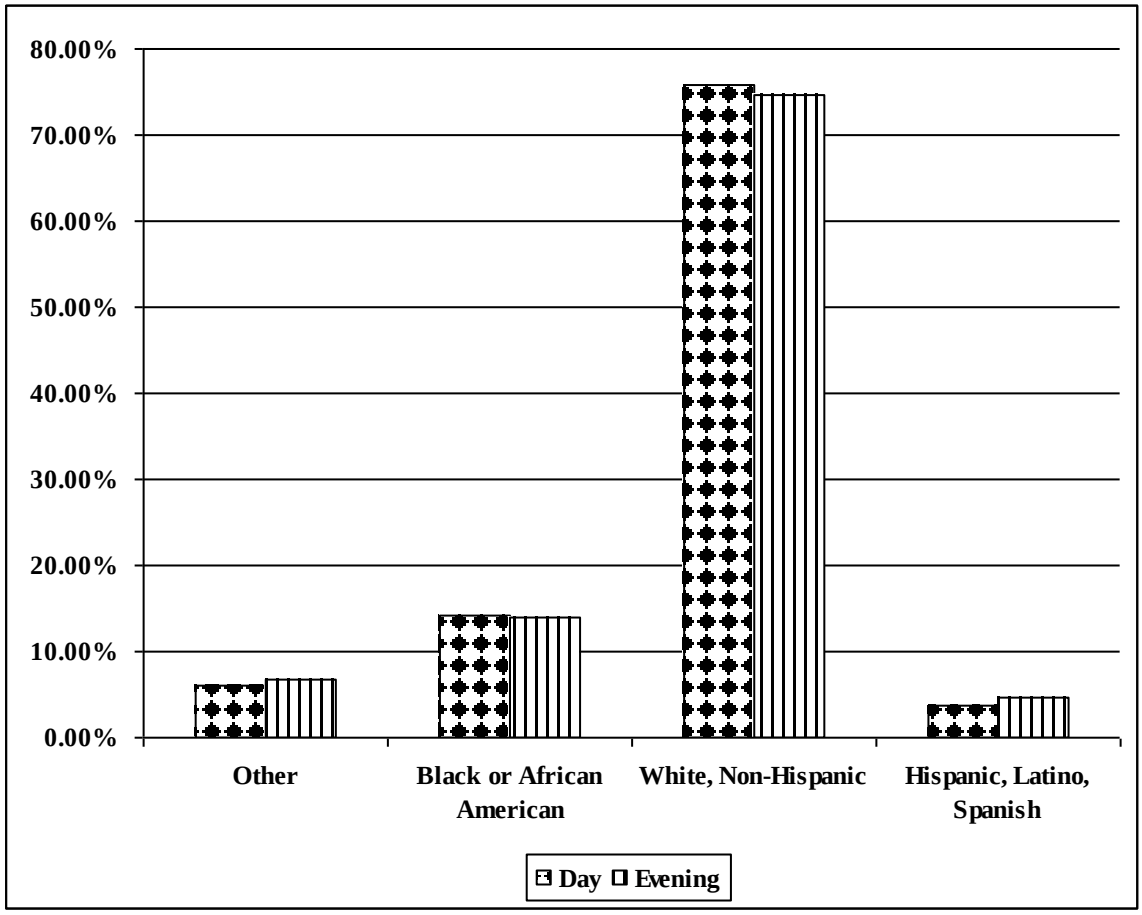
The analysis of day and evening enrollment in relation to students' race did not produce a significant result. When students were asked to indicate race, there were no significant differences between day and evening students with regard to race. These findings are presented below in Table 10 and Figure 8.

Table 10: Cross Tabulation between Time of Enrollment and Race of Student

	Day Students	Evening Students	Total
Other	227 6.1%	68 6.8%	295 6.2%
Black or African American	535 14.3%	138 13.9%	673 14.2%
White, Non-Hispanic	2840 75.9%	743 74.6%	3583 75.7%
Hispanic, Latino, Spanish	138 3.7%	47 4.7%	185 3.9%
Total	3740 100.0%	996 100.0%	4736 100.0%

Pearson Chi-Square – 3.155a, Sig. = .368

Figure 8: Time of Enrollment and Race



The second step within the second level of analysis was to determine whether the differences between day and evening students would be sustained when controlling for the additional student variables outlined above. This was tested using a step-wise regression procedure that included the fourteen engagement variables as dependent variables and twelve student variables as independent variables. Prior to performing the regression procedure, categorical variables that included two categories were recoded utilizing dummy variables. Included were time of enrollment (day = 1 and evening = 0), enrollment status (full-time = 1 and part-time = 0), children living at home (yes = 1 and no = 0), gender of student (male = 1 and female = 0), marital status (married = 1 and not

married = 0), and English as first language (yes = 1 and no = 0). In addition to these variables, the researcher included the following continuous variables: age of student and total credit hours earned at college. The final four variables were comprised of the four racial categories, other, black, white, and Hispanic, each considered as a separate variable for regression purposes. The step-wise regression procedure resulted in fourteen separate models, each representing one of the fourteen engagement variables. The first five tables presented below include the independent variables that were most predictive of the five engagement benchmarks and the next nine tables include the independent variables that were most predictive of the nine engagement factors.

Engagement Variable One: Active and Collaborative Learning

With regard to the first engagement benchmark, active and collaborative learning, time of enrollment was not a significant factor. Instead, the apparent differences between day and evening students that were reported in level one could be attributed to other student variables as presented in Table 11. Specifically, total credit hours earned at the college and enrollment status had the strongest positive relationship to the dependent variable, active and collaborative learning, with Beta coefficients of .184 and .174 respectively. Students who had earned more credit hours at the college and who were enrolled full-time reported higher levels of active and collaborative learning. In addition, age of students was found to be a significant predictor of the dependent variable. The relationship represented by the .083 Beta coefficient signified that, as the age of students increased, so did active and collaborative learning. Of the race categories, white was found to be a significant predictor of active and collaborative learning, with a Beta coefficient of -.045. White students, with all other categories controlled, reported less

active and collaborative learning. The final variable included in the step-wise regression was having a child at home. Students with one or more children at home reported higher levels of active and collaborative learning, represented by a Beta score of .038.

Table 11: Active and Collaborative Learning – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	36.605	1.450		25.238	.000
Hours at this College	3.216	.255	.184	12.628	.000
Full-time/ Part-time 1=full	10.053	.864	.174	11.637	.000
Age of Student	1.167	.238	.083	4.909	.000
White	-2.701	.860	-.045	-3.142	.002
Have Kids 1=yes	2.032	.884	.038	2.299	.022

Engagement Variable Two: Student Effort

Of all control variables employed in the step-wise regression procedure, seven variables had significant Beta coefficients signifying them as predictors of the second engagement benchmark, student effort. Among them was time of enrollment, the primary independent variable being investigated in the study. As reported in Table 12, a Beta coefficient of .038 indicated that being enrolled primarily in day classes was a positive predictor of student effort. Accounting for roughly five times the variance of

time of enrollment, enrollment status was the independent variable with the strongest predictive relationship. A Beta score of .194 showed that full-time students were most likely to report higher levels of student effort. Enrollment status was followed by students' age. The relationship represented by the .154 coefficient signified that, as age increased, student effort increased. With regard to the next variable, gender of student, the -.132 Beta coefficient indicated that being male decreased the reported level of student effort. The next three independent variables included in the step-wise procedure accounted for less of the overall variance. Students who were black, who spoke a language other than English, and who had one or more children at home reported higher levels of student effort, with Beta coefficients of .064, -.062, and .057 respectively.

Table 12: Student Effort – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	43.900	2.265		19.383	.000
Gender 1=male	-6.641	.737	-.132	-9.017	.000
Full-time/ Part-time 1=full	10.700	.857	.194	12.478	.000
Age of Student	2.060	.224	.154	9.207	.000
Have Kids 1=yes	2.905	.852	.057	3.408	.001
English 1st Language 1=yes	-8.193	1.866	-.062	-4.391	.000
Day/Evening 1=day	2.304	.922	.038	2.497	.013
Black	4.535	1.015	.064	4.467	.000

Engagement Variable Three: Academic Challenge

In predicting the third engagement benchmark, academic challenge, seven student variables had significant Beta coefficients. The findings are reported in Table 13 below. Time of enrollment was a factor included in the step-wise regression with a Beta score of .037 indicating that enrollment in day classes was a positive predictor of academic challenge. Of all variables considered, the single strongest predictor was enrollment status with a Beta coefficient of .181. The variable with the second highest coefficient of

.124 was age, which signified that, as age increased, academic challenge increased. The next two student variables had roughly the same predictive weight in relation to the dependent variable. The Beta coefficients for gender of students (-.098) and number of hours earned at the college (.097) indicated that females who had earned a higher number of credit hours reported higher levels of academic challenge. The next strongest predictor of academic challenge was having one or more children living at home with a Beta score of .070. The relationship between the seventh and final variable included in the model was about half as strong with a coefficient of .034. Black students reported higher levels of academic challenge than other students.

Table 13: Academic Challenge – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	34.375	1.446		23.776	.000
Full-time/ Part-time 1=full	10.192	.884	.181	11.534	.000
Age of Student	1.702	.232	.124	7.339	.000
Gender 1=male	-5.039	.754	-.098	-6.680	.000
Hours at this College	1.653	.246	.097	6.707	.000
Have Kids 1=yes	3.658	.875	.070	4.182	.000
Day/Evening 1=day	2.273	.946	.037	2.403	.016
Black	2.450	1.044	.034	2.348	.019

Engagement Variable Four: Student-Faculty Interaction

With regard to the fourth engagement benchmark, student-faculty interaction, time of enrollment was not significant when controlling for all student variables. However, the step-wise procedure did include five other variables. As reported in Table 14, the number of credit hours earned at the college and enrollment status had the highest Beta coefficients, which were .188 and .156 respectively. These two variables were by far the strongest predictors of the dependent variable. The next variable included in the

model was having kids with a Beta score of .047. The final two variables selected in the regression procedure had a negative relationship to student-faculty interaction. The Beta coefficients for white (-.043) and gender (-.039) signified that students in any other racial category and female students reported higher levels of student-faculty interaction.

Table 14: Student-Faculty Interaction – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	43.321	1.236		35.048	.000
Hours at this College	3.384	.261	.188	12.986	.000
Full-time/ Part-time 1=full	9.295	.870	.156	10.679	.000
Have Kids 1=yes	2.623	.837	.047	3.135	.002
White	-2.616	.889	-.043	-2.942	.003
Gender 1=male	-2.139	.806	-.039	-2.653	.008

Engagement Variable Five: Support for Learners

Of the variables considered in the step-wise regression procedure for the dependent variable, support for learners, seven had significant Beta coefficients. These findings are reported in Table 15 below. Time of enrollment was included in the model with a Beta score of .048, indicating enrollment in day courses was a positive predictor of support for learners. The student variable with the largest impact on the dependent

variable was having children, which had a Beta coefficient of .122. Being enrolled full-time (.091) and being black (.083) had the next strongest scores. Both marital status (-.058) and gender (-.054) had a negative correlation to the dependent variable, indicating that being single and being female were positive predictors of support for learners. Finally, being Hispanic was a significant predictor of the dependent variable, as signified by a Beta coefficient of .046.

Table 15: Support for Learners – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	47.338	1.108		42.739	.000
Full-time/ Part-time 1=full	5.368	.934	.091	5.747	.000
Have Kids 1=yes	6.688	.924	.122	7.235	.000
Black	6.320	1.122	.083	5.633	.000
Marital Status 1-yes	-3.444	.998	-.058	-3.451	.001
Gender 1=male	-2.894	.807	-.054	-3.585	.000
Hispanic	6.180	1.987	.046	3.109	.002
Day/Evening 1=day	3.090	1.005	.048	3.074	.002

Engagement Variable Six: Faculty Interactions

With regard to the student engagement factor, faculty interactions, five student variables had significant Beta coefficients. As reported in Table 16, time of enrollment was not one of the five significant variables. Enrollment status and number of credit hours were the strongest predictors with scores of .156 and .152, respectively. This result meant that full-time students with a larger number of earned credits reported higher levels of faculty interaction. The next variable, age of student, had roughly half the predictive value with a Beta score of .079, indicating that, as the age of a student increased, faculty interactions increased. Having children living at home (.064) and being black (.052) were the remaining two variables determined to be significant predictors of the dependent variable.

Table 16: Faculty Interactions – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	.296	.009		31.129	.000
Hours at this College	.019	.002	.152	10.347	.000
Full-time/ Part-time 1=full	.066	.006	.156	10.384	.000
Age of Student	.008	.002	.079	4.660	.000
Have Kids 1=yes	.025	.007	.064	3.897	.000
Black	.028	.008	.052	3.539	.000

Engagement Variable Seven: Class Assignments

In predicting the next engagement factor, class assignments, the step-wise regression procedure identified four independent variables with significant Beta coefficients, as reported in Table 17. Time of enrollment was not found to be a significant predictor of the dependent variable in this model. The largest Beta values were assigned to enrollment status (.162) and number of hours earned at the college (.146) making them the strongest predictors of class assignments. The next strongest relationship was between the dependent variable and gender, with a Beta score of -.098. This result indicated that being female was a positive predictor of class assignments. The

final variable included in the model was marital status. The .037 Beta coefficient signified a positive relationship between being married and class assignments.

Table 17: Class Assignments – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	.386	.009		42.156	.000
Full-time/ Part-time 1=full	.089	.008	.162	10.953	.000
Hours at this College	.024	.002	.146	10.044	.000
Gender 1=male	-.049	.007	-.098	-6.719	.000
Marital Status 1=yes	.021	.008	.037	2.467	.014

Engagement Variable Eight: Exposure to Diversity

Of the independent variables employed in this regression procedure, six returned significant Beta coefficients, indicating they were predictive of exposure to diversity. These findings were reported below in Table 18. While time of enrollment was not found to be a predictor of the dependent variable in this model, full-time enrollment was the single strongest predictor of exposure to diversity, with a Beta coefficient of .111. Next, with about half the predictive value, having earned more hours (.065), being non-white

(-.063), and being female (-.060) increased one's likelihood of exposure to diversity. Children at home and marital status were the final two variables included in the model with Beta scores of .052 and -.033, respectively. This result signified that having children living at home and being single increased levels of exposure to diversity.

Table 18: Exposure to Diversity – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	.451	.013		35.623	.000
Full-time/ Part-time 1=full	.066	.009	.111	7.360	.000
Gender 1=male	-.032	.008	-.060	-3.933	.000
White	-.039	.009	-.063	-4.257	.000
Hours at this College	.012	.003	.065	4.404	.000
Have Kids 1=yes	.029	.009	.052	3.055	.002
Marital Status 1-yes	-.020	.010	-.033	-1.996	.046

Engagement Variable Nine: Collaborative Learning

Utilizing the step-wise regression model to examine the relationship between the independent variables and the dependent variable, collaborative learning, data analysis found three variables to be statistically significant predictors. As reported in Table 19

below, time of enrollment was not predictive of collaborative learning. The dependent variable was predicted by the number of hours earned at the college (.173) and enrollment status (.159). Though assigned a much lower Beta score (-.070), being white was also predictive of collaborative learning. The negative coefficient indicated that white students reported lower levels of collaborative learning than other student groups.

Table 19: Collaborative Learning – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	.201	.007		26.792	.000
Hours at this College	.021	.002	.173	11.948	.000
Full-time/ Part-time 1=full	.065	.006	.159	11.032	.000
White	-.029	.006	-.070	-4.863	.000

Engagement Variable Ten: Information Technology

In this model, the dependent variable, information technology, was predicted by five student variables as found in Table 20 below. While time of enrollment was excluded by the step-wise procedure, gender and hours earned at the college were the two variables assigned the highest Beta values at -.170 and .162, respectively. The direction of the relationships suggested that females who earned a higher number of hours reported higher scores on information technology items. With a Beta coefficient of .124, being

enrolled full-time was also a strong predictor of the dependent variable. The final two variables included in the regression model were age of student and black, with scores of -.061 and -.044. The relationships represented by these Beta coefficients signified that being older and being black were negative predictors of information technology.

Table 20: Information Technology – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	.477	.015		31.354	.000
Hours at this College	.032	.003	.162	11.151	.000
Gender 1=male	-.102	.009	-.170	-11.762	.000
Full-time/ Part-time 1=full	.081	.010	.124	8.294	.000
Age of Student	-.010	.002	-.061	-4.064	.000
Black	-.037	.012	-.044	-3.028	.002

Engagement Variable Eleven: Mental Activities

Of the control variables employed in the step-wise regression model, analysis found six to be statistically significant predictors of the dependent variable, mental activities. These findings were reported in Table 21 below. In this model, time of enrollment was not a significant factor. The variable with the strongest relationship was enrollment status. The Beta score of .137 indicated that being enrolled full-time was

most predictive of higher levels of mental activities. Next, being older (.107) and having earned more hours (.096) were predictive of higher responses on mental activities items. With less than half the predictive weights assigned to the strongest variable, having kids (.064) and being female (-.059) were the next strongest predictors of mental activities. The final variable included in the model was black, with a Beta coefficient of .029, indicating black students were more likely to report higher levels of mental activities than other students.

Table 21: Mental Activities – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	.427	.012		37.089	.000
Age of Student	.013	.002	.107	6.267	.000
Full-time/ Part-time 1=full	.068	.007	.137	9.089	.000
Hours at this College	.014	.002	.096	6.539	.000
Gender 1=male	-.027	.007	-.059	-3.952	.000
Have Kids 1=yes	.029	.008	.064	3.736	.000
Black	.018	.009	.029	1.982	.048

Engagement Variable Twelve: School Opinions

In predicting the dependent variable, school opinions, the regression procedure returned seven significant student variables. As reported in Table 22 below, time of enrollment was included in the model. The Beta coefficient of .056 indicated that a significant percentage of the variance in school opinions was attributed to time of enrollment, with day students assigning higher ratings on school opinion items. Having one or more children living at home was the single strongest predictor of positive school opinions, with a Beta score of .138. Being enrolled full-time and being black were assigned the next highest weights of .087 and .081, respectively. The final three variables found to predict school opinions were gender (-.066), marital status (-.044), and Hispanic (.039). The direction of these relationships suggested that students who were female, unmarried, and Hispanic reported higher school opinions.

Table 22: School Opinions – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	.441	.010		45.622	.000
Have Kids 1=yes	.066	.008	.138	8.172	.000
Full-time/ Part-time 1=full	.045	.008	.087	5.498	.000
Black	.054	.010	.081	5.510	.000
Gender 1=male	-.031	.007	-.066	-4.382	.000
Day/Evening 1=day	.031	.009	.056	3.589	.000
Hispanic	.046	.017	.039	2.660	.008
Marital Status 1-yes	-.023	.009	-.044	-2.634	.008

Engagement Variable Thirteen: Student Services

Of the independent variables used in the step-wise regression procedure, eight had significant Beta coefficients, with the strongest predictor of the dependent variable being enrollment status (.144). As reported in Table 23 below, being enrolled full-time was indicative of a higher frequency of student service use. While time of enrollment was not significantly predictive of the dependent variable, the following variables had less than

half the predictive strength of enrollment status: gender (-.074), have kids (.066), English as a first language (-.066), black (.065), and marital status (-.060). The direction of these relationships signified that being female, having kids at home, speaking a language other than English, being black, and being single predicted greater frequency in using student services. The final two variables included in the model were weaker predictors of student services, though still significant. Being white (-.053) was indicative of a lower frequency of student service use. Having earned a higher number of hours (.034) was a positive predictor of student service use.

Table 23: Student Services – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	.431	.021		20.149	.000
Full-time/ Part-time 1=full	.081	.008	.144	9.681	.000
White	-.031	.013	-.053	-2.397	.017
Gender 1=male	-.038	.008	-.074	-4.942	.000
English 1st Language 1=yes	-.088	.021	-.066	-4.144	.000
Black	.047	.015	.065	3.053	.002
Have Kids 1=yes	.034	.009	.066	3.897	.000
Marital Status 1=yes	-.034	.010	-.060	-3.609	.000
Hours at this College	.006	.002	.034	2.321	.020

Engagement Variable Fourteen: Academic Preparation

The dependent variable, academic preparation, was predicted by six student variables as reported in Table 24 below. Among the six was time of enrollment, with a Beta coefficient of .056. This finding signified that students enrolled primarily in day classes were more likely to report higher levels of academic preparation. The single

strongest predictor of the dependent variable was full-time enrollment, with a Beta score of .242. Age and gender were the two variables with the next highest Beta weights at .154 and -.144, respectively. The direction of the relationships meant that students who were older and female reported higher levels of academic preparation. The Beta coefficients for the final two variables included in the model were .051, assigned to hours at the college, and .033, assigned to having kids. This finding signified that students who had earned a higher number of credit hours and who had one or more children at home gave higher ratings to the academic preparation items.

Table 24: Academic Preparation – Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.	Beta		
Constant	.380	.009		41.339	.000
Full-time/ Part-time 1=full	.088	.006	.242	15.649	.000
Age of Student	.014	.001	.154	9.233	.000
Gender 1=male	-.048	.005	-.144	-9.891	.000
Day/Evening 1=day	.022	.006	.056	3.695	.000
Hours at this College	.006	.002	.051	3.557	.000
Have Kids 1=yes	.011	.006	.033	2.003	.045

SUMMARY

The researcher performed a series of data analysis procedures to address the questions under investigation. While level one analysis revealed a significant difference between day and evening students with regard to each of the fourteen engagement variables, it was discovered in the second level of analysis that the differences for certain variables were actually the result of a combination of other factors and not time of enrollment. Detailed findings were reported with regard to each of the fourteen

engagement variables. The following chapter includes a summary of the study as well as implications and recommendations for educational leaders.

Chapter Five: Summary of Findings, Implications and Recommendations

The purposes of this quantitative study of the experiences of students attending small community colleges were two-fold. First, the researcher compared the experiences of students as reported on the Community College Student Report to determine if there was a difference between students' experiences based upon their primary time of enrollment. The second purpose was to take that information and to investigate whether significant differences, if they existed, could be attributed to any other factor or combination of factors by employing a series of statistical controls. The study's key findings will be presented in this chapter along with a theoretical model that portrays the experiences of evening students. The implications of the model will be explored and specific recommendations for educational leaders will facilitate practical application of the model.

SUMMARY OF FINDINGS

The first level of analysis addressed the differences between day and evening students with regard to these five engagement benchmarks: active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support for learners, and these nine engagement factors: faculty interactions, class assignments, exposure to diversity, collaborative learning, information technology, mental activities, school opinions, student services, and academic preparation. Analysis was conducted using an independent samples t-test, which compared the means of day and evening students in all fourteen areas of student engagement. Results indicated that there was a significant difference between the experiences of day and evening students with regard to

each of the engagement benchmarks and factors. Without exception, day students reported higher levels of student engagement.

Because time of enrollment is only one of many student characteristics, the second level of analysis required the researcher to determine whether the differences between day and evening students might actually be attributed to one or more other student characteristics. The first step included descriptive statistics to compare time of enrollment and eight additional student characteristics: enrollment status, number of hours completed at the college, age of student, gender of student, marital status, children living at home, native language of student, and race of student.

To complete the second level of analysis, the researcher utilized a step-wise linear regression model to determine whether there was a statistically significant predictive relationship between the student variables and the engagement variables. Essentially, the researcher sought to determine whether time of enrollment, with all other variables controlled, would predict students' experiences in any or all of the areas under investigation.

The overall findings of this analysis were reported in Table 25 below. The student variables were arranged in descending order according to the total number of engagement areas predicted by the variable. Time of enrollment, the primary independent variable under investigation, was a significant predictor of five out of the fourteen dependent variables. Among them were student effort, academic challenge, support for learners, academic preparation, and school opinions. In each case, being enrolled primarily in day classes predicted a greater degree of student engagement.

The student variable that predicted the highest number of dependent variables, all fourteen, was enrollment status. The direction of the relationship was such that full-time students categorically reported higher levels of student engagement.

The following independent variables were significant predictors of eleven of the engagement variables: having children, gender, and total credit hours completed at the college. Students who reported having children living at home also reported higher levels of engagement in each of the significant areas. There was a negative relationship between gender and each of the eleven variables where gender was significant. This finding signified that being male was predictive of lower levels of engagement in those areas. Having earned a higher number of credit hours predicted a higher level of engagement in all eleven areas in which the independent variable was significant.

Of the race variables included in the step-wise procedure, black predicted eight of the dependent variables, which was higher than any other category. With the exception of information technology, the relationship was positive indicating black students reported higher levels of engagement. Age of students significantly predicted engagement in seven areas. Generally, engagement was predicted to increase as age increased. However, information technology was the exception where the opposite was true.

In addition to time of enrollment, marital status and white were predictors of five of the engagement variables. With regard to marital status, the direction of the relationship varied. In four of the five areas, a negative coefficient indicated single students were predicted to be more engaged. The exception was class assignments where married students reported higher engagement. There was a negative relationship between

being white and being engaged with regard to each of the variables where white was a significant predictor.

Two of the dependent variables were predicted by the native language of students and by identifying oneself as Hispanic. Students whose native language was not English reported higher engagement rankings in student effort and student services. Being Hispanic served as a positive predictor of support for learners and school opinions. Finally, identifying oneself with a race other than white, black, or Hispanic was not significantly predictive of any of the fourteen engagement variables.

Table 25: Student Variables as Predictors of Engagement Variables In Descending Order by Total Number of Engagement Variables Predicted

	Act. Collab. Learn.	Stud. Effort	Acad. Chall.	Stud. Fac. Inter.	Supp. For Learn.	Fac. Inter.	Class Assign.	Exp. To Divers.	Coll. Learn.	Info. Tech.	Ment. Act.	Sch. Opin.	Stud. Serv.	Acad. Prep.
Enrollment Status 1=full	.174	.194	.181	.156	.091	.156	.162	.111	.159	.124	.137	.087	.144	.242
Have Kids 1=yes	.038	.057	.070	.047	.122	.064	0	.052	0	0	.064	.138	.066	.033
Gender 1=male	0	-.132	-.098	-.039	-.054	0	-.098	-.06	0	-.17	-.059	-.066	-.074	-.144
Credit Hours at College	.184	0	.097	.188	0	.152	.146	.065	.173	.162	.096	0	.034	.051
Race Black	0	.064	.034	0	.083	.052	0	0	0	-.044	.029	.081	.065	0
Age of Student	.083	.154	.124	0	0	.079	0	0	0	-.061	.107	0	0	.154
Time of Enrollment 1=day	0	.038	.037	0	.048	0	0	0	0	0	0	.056	0	.056
Marital Status 1=yes	0	0	0	0	-.058	0	.037	-.033	0	0	0	-.044	-.06	0
Race White	-.045	0	0	-.043	0	0	0	-.063	-.070	0	0	0	-.053	0
English 1st Language 1=yes	0	-.062	0	0	0	0	0	0	0	0	0	0	-.066	0
Race Hispanic	0	0	0	0	.046	0	0	0	0	0	0	.039	0	0
Race Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0

The findings of the step-wise regression procedure were reported in Table 26 by arranging them in descending order according to the number of student variables that predicted each engagement variable. Student services was the dependent variable that

was predicted by the highest number of student variables with eight. The predictive relationship was such that being enrolled full-time, having children at home, being black, and having a higher number of earned credits predicted a higher frequency of student service use. Conversely, being male, married, English speaking, and white predicted a lower frequency of student service involvement.

The following four engagement variables were predicted by seven of the independent variables: student effort, academic challenge, support for learners, and school opinions. Students predicted to report the highest levels of student effort were full-time, enrolled in day classes, parents with children living at home, female, non-native English speakers, black, and older. Academic challenge was significantly predicted by time of enrollment, enrollment status, having kids, gender, black, age, and credit hours at college. The direction of the relationships signified that the highest levels of academic challenge were predicted for full-time students, who were older, who had earned a higher number of credits, and who were female. In addition, they were enrolled in day classes, were black, and had children at home. The engagement variables, support for learners and school opinions, were significantly predicted by these variables: having kids, enrollment status, black, marital status, gender, time of enrollment, and Hispanic. Support for learners and school opinions were highest in students with children at home and students who were enrolled full-time. Also, students who were female, black, unmarried, Hispanic, and enrolled in day classes were predicted to report higher levels of support and more favorable school opinions.

Exposure to diversity, mental activities, and academic preparation were each predicted by six student variables. In predicting exposure to diversity, full-time students,

who had earned a higher number of hours, and who had children at home were highest. Students who were male, unmarried, and white reported less exposure to diversity. Mental activities were predicted to be highest in full-time, older students, who had earned a higher number of credit hours at the college. There was also a positive relationship between mental activities and having kids at home, being female, and being black. The predictors of academic preparation included the following: enrollment status, age, gender, time of enrollment, number of credits, and having kids. The direction of the relationships indicated full-time, older, female students, who were enrolled in day classes, had children, and had earned a higher number of credits were more likely to report higher levels of preparation.

Active and collaborative learning, student-faculty interaction, faculty interactions, and information technology were each significantly predicted by five independent variables. The two variables with the highest predictive power for all four of these engagement variables were time of enrollment and number of credit hours earned at the college. In each case, full-time enrollment and a higher number of hours were indicative of higher levels of engagement. While the strength of the relationship was somewhat lower, active and collaborative learning was also predicted by having children at home, being white, and being older. Older students with children living at home reported more active and collaborative learning. The converse was true for white students where a negative coefficient predicted less active and collaborative learning. Student-faculty interaction was predicted by having kids, gender, and white. The direction indicated that higher levels of interaction between students and faculty were predicted for students who were non-white, female, and had children at home. With regard to the engagement

factor, faculty interactions, age, race, and having children were the final three predictors. Students who were older, black, and had children reported higher levels of faculty interactions. Information technology was predicted by gender, race, and age. The direction of these relationships signified that less use of information technology was expected for students who were older, black, and male.

The variable, class assignments, was predicted by four student variables. The strongest relationships were between the dependent variable and the control variables, enrollment status and credit hours earned at the college. Full-time students with more credit hours were predicted to assign higher ratings to class assignment items. The last two predictors of class assignments were gender and marital status, whereby female, married students could be expected to rate the variable higher. With regard to collaborative learning, three variables predicted the dependent variable. Full-time status and number of hours were positively related to collaborative learning. Being white was a negative predictor of the dependent variable.

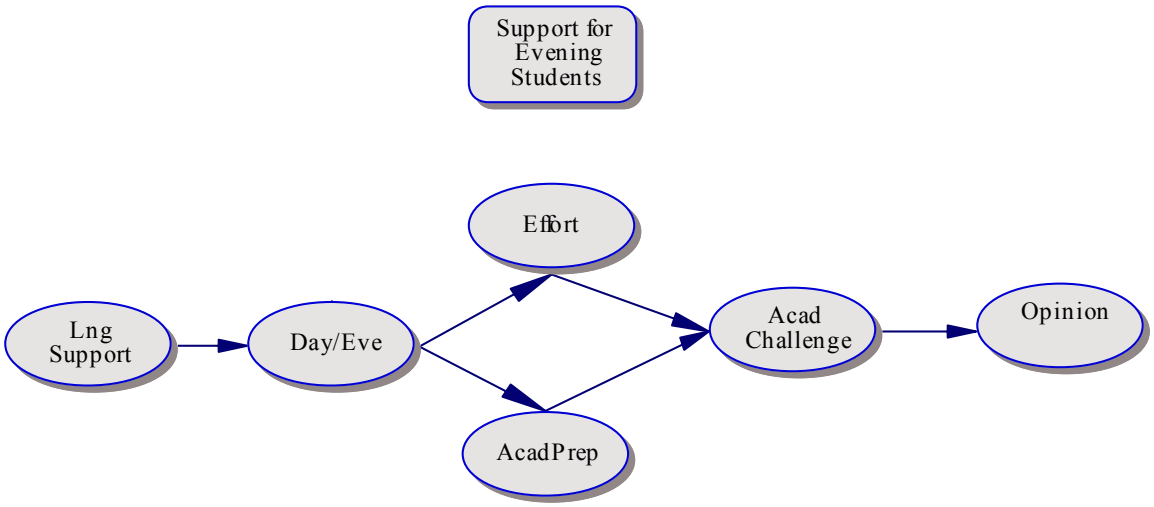
Table 26: Engagement Variables as Predicted by Student Variables In Descending Order by Total Number of Student Variables as Predictors

	Stud. Serv.	Stud. Effort	Acad. Chall.	Supp. For Learn.	Sch. Opn.	Exp. To Div.	Ment. Act.	Ac. Prep.	Act. Coll. Learn.	Stud. Fac. Inter.	Fac. Int.	Info. Tech.	Class Ass.	Coll. Lrn.
Time of Enroll. 1=day	0	.038	.037	.048	.056	0	0	.056	0	0	0	0	0	0
Enroll. Status 1=full	.144	.194	.181	.091	.087	.111	.137	.242	.174	.156	.156	.124	.162	.159
Kids 1=yes	.066	.057	.070	.122	.138	.052	.064	.033	.038	.047	.064	0	0	0
Gend. 1=male	-.074	-.132	-.098	-.054	-.066	-.06	-.059	-.144	0	-.039	0	-.17	-.098	0
Mar. Stat. 1=yes	-.06	0	0	-.058	-.044	-.033	0	0	0	0	0	0	.037	0
Eng. 1st Lang. 1=yes	-.066	-.062	0	0	0	0	0	0	0	0	0	0	0	0
Race Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Race Black	.065	.064	.034	.083	.081	0	.029	0	0	0	.052	-.044	0	0
Race White	-.053	0	0	0	0	-.063	0	0	-.045	-.043	0	0	0	-.070
Race Hisp.	0	0	0	.046	.039	0	0	0	0	0	0	0	0	0
Age	0	.154	.124	0	0	0	.107	.154	.083	0	.079	-.061	0	0
Credit Hrs. at Coll.	.034	0	.097	0	0	.065	.096	.051	.184	.188	.152	.162	.146	.173

IMPLICATIONS FOR EDUCATIONAL LEADERS

A key task of community college leaders today is to ensure the institutions they lead are proactive in improving student success rates by removing any institutional barriers that might hinder success. In order to accomplish this, college personnel must first take steps to identify students who are less engaged in the educational process. Knowing that certain student characteristics might place students at a higher risk, it is imperative that college leaders encourage "critical conversations" to identify less engaged groups of students and to develop plans to improve outcomes for all students (McClenney, 2004b). In short, it is vital that educational leaders have a clear understanding of who is and is not engaged on their campuses. To contribute to this effort, this study examined the experiences of students in small community colleges to determine if there was a difference in engagement between day and evening students. The findings from the above summary supported the development of a conceptual model that depicts student engagement based upon time of enrollment. As reported in the first row of Table 26, five of the fourteen student engagement variables were significantly predicted by time of enrollment. There was something about time of enrollment that could not be completely explained by the other student variables with regard to these areas of student engagement: student effort, academic challenge, support for learners, academic preparation, and school opinions. In each case, enrollment primarily in evening courses was a predictor of lower levels of engagement. When one considers how each of these areas of engagement might relate to one another, the following theory emerges.

Figure 9: Theoretical Model – Engagement Experience of Evening Students



This theory was tested using a hierarchical regression procedure. The model depicted in Figure 9 above proved to be quite predictive, with an R Square of .882. By including academic preparation, time of enrollment, support for learners, student effort, and academic challenge into the regression model, it predicted 88 percent of the variation in school opinions. The following model summary tells us which of the five variables was most predictive of student opinions.

Table 27: Hierarchical Regression Model Summary - Dependent Variable - Student Opinions

Model	R	R Square	Adjusted R Square	Standard Error
Constant, Support for Learners	.932	.869	.869	.0825502
Constant, Support for Learners, Day/Eve 1=Day	.932	.869	.869	.0825305
Constant, Support for Learners, Day/Eve 1=Day, Academic Preparation, Student Effort	.934	.873	.873	.0811964
Constant, Support for Learners Day/Eve 1=Day Academic Preparation, Student Effort, Academic Challenge	.939	.882	.882	.0784152

Accounting for approximately 87 percent of the variance in the dependent variable, student opinions, support for learners was the strongest predictor in the model. Beyond support for learners, the additional variables resulted in slight increases to the overall predictive value of the model. Consistent with the data, the conceptual model places support for learners at the forefront. Students receive support from the campus community that includes financial aid and academic support as well as support from relationships with other members of the academic community. The model showed the level of support reported by students was different based upon time of enrollment. As a result, other student engagement variables were affected. The end result for evening students was a lower opinion of the college as a support system and advocate for students. The ensuing discussion seeks to provide further explanation of the conceptual

model, its implications for educational leaders, and how the model lends itself to practical application in educational practice. The end goal of this discussion is to provide some basis or direction for change that will enhance the social and academic experiences of evening students.

FROM THEORY TO PRACTICE: RECOMMENDATIONS FOR EDUCATIONAL LEADERS

Student engagement research tells us that the experiences of students can vary significantly within any given institution (Kuh, 2003). The results of this quantitative study of students enrolled in small community colleges showed that students enrolled primarily in evening courses were less engaged with regard to certain areas of academic and social engagement. As the definition of engagement suggests, they were less likely to devote time and effort to the practices that are linked to positive educational outcomes. And, the institutions were less likely to support them in a manner that would encourage student success.

As previously discussed, the findings from this study suggest a theory in which support for learners is critical. Community college students perceive a certain level of support by the campus community. This support includes tangible sources like financial aid and academic support services as well as non-tangible sources like that received when students successfully integrate into the campus community and establish peer relationships. The results of the study concluded evening students perceived less support. Specifically, evening students were less likely to indicate the college provided support to help students succeed, encouraged contact among students from different backgrounds, and provided resources to help students cope with their responsibilities, thrive socially,

and to afford their education. While there was not a significant difference between day and evening students with regard to the engagement factor, student services, indicating students from both groups used student services like advising and career counseling with the same frequency, there was a difference in the overall benchmark, support for learners. This suggested that evening students perceived less overall support by the campus community. Based upon comments made during the focus group that initially inspired this study and the researcher's personal experience, several factors were likely to contribute to this finding. Typically, small college campuses have limited resources and employ few support personnel to carry out the student service functions. As a result, offices may be open for a limited number of hours and evening students may not have the same exposure to services and activities as day students. There also may be a disconnect in disseminating information to evening students. Just as evening students spend a limited number of hours on campus, the same is also true of the instructors who teach courses in the evening. As a result, instructors may lack the knowledge and information concerning campus programs and deadlines. Also due to limited campus exposure, evening students may not have the same opportunities to establish peer relationships and build a support system to help them cope with challenges and responsibilities that come with being a student.

As the theoretical model suggests, shortcomings in this area affect other aspects of engagement as well. As the result of social isolation, lack of academic support, or the inability to cope with non-academic responsibilities, students' effort may suffer. The results of the study suggested evening students put less time and effort into their studies, were less likely to engage in critical thinking processes, and were less likely to use

academic services. Specifically, evening students, as a whole, were less likely to prepare multiple drafts of papers and assignments, were less likely to have worked on projects requiring them to integrate ideas and concepts, and were less likely to have come to class prepared.

Understanding the critical link between support for learners and other aspects of engagement, college leaders who are concerned with the engagement of evening students might consider these recommendations:

- Offer extended hours, if feasible, to enable evening students to take part in more programs and services. Even offices with limited staff sizes can stagger schedules to remain open longer.
- Ensure evening students have the same access to information pertaining to financial aid programs, campus support services, and activities. This would include providing staff members to assist students in processing the information at times when students are available. This may also require improving the manner in which evening faculty receive information.
- If the college requires an orientation program or course, college personnel might design a program targeted specifically at evening students. This could provide a mechanism for college personnel to interact with evening students. It may also provide an opportunity for evening students to form peer relationships.

Like support for learners, academic challenge also includes measurable components like the number of textbooks or papers assigned in a given course as well as immeasurable ones like the degree of critical thinking and self-motivation students exert in the pursuit of academic goals. It also reflects the level of encouragement to dedicate

significant time and effort to coursework perceived by students. Enrollment in evening courses signified putting forth less effort in meeting an instructor's standards, being assigned fewer textbooks or readings, and being assigned fewer papers or reports. Evening students were less likely to indicate they engaged in mental activities like analyzing the basic elements of an idea, synthesizing ideas and information, or applying information, theories, or concepts to solve problems or to perform new skills. In short, evening students enrolled in small community colleges were less challenged academically. This is particularly troubling because the academic integrity of an institution relies, in part, upon the manner in which faculty carry out academic standards. Like the other areas of engagement, there are several probable explanations for these findings. First, it is a common practice of community colleges to employ part-time instructors to teach evening courses. In some instances, like that described earlier in the study, small colleges face competition from larger institutions for qualified instructors. In other cases, colleges hire highly competent and skilled professionals who have expertise with the subject matter but who are not trained in teaching techniques. The differences in the academic engagement of evening students might be addressed by considering these recommendations:

- Establish clearly stated and uniform standards and expectations with regard to the academic curriculum.
- Include adjunct instructors in all faculty orientation and development programs. Use these opportunities to teach more effective and dynamic instructional techniques and to convey information about academic standards.

- Find ways to better assimilate adjunct faculty into the campus community. Be certain they know campus personnel and know whom to contact with concerns about students. Improve the lines of communication between staff and adjunct faculty.

As suggested by the theory behind this discussion, these variables combined lead students to form opinions about their overall collegiate experience and the institutions they attend. Evening students report lower college opinions as a result of shortcomings in both the social and academic realms of the institutions. In general, evening students perceived lower levels of academic and social support, which resulted in less favorable opinions of the college's role as an advocate and support system for students. As a result of efforts like those described here, evening students may perceive greater support and be more challenged academically. In turn, this may have a positive effect on the other component of engagement, which is the time and effort students devote to the activities that promote their success.

Other Key Findings

While outside the specific scope of the study, there were several interesting findings that deserve mention and might merit attention in future research:

- Full-time enrollment was the single strongest predictor of student engagement. Community college personnel have limited "capture" time with students and this is particularly true of part-time students. Programs and services that increase student engagement should target students at times when they are available.

- The total number of credit hours completed at the college was a significant factor in predicting engagement in all but three of the engagement areas. This finding signified students who had completed more hours generally reported higher levels of engagement. The number of credit hours completed serves as a positive indicator of student retention; therefore, this finding supported the link between engagement and retention. By targeting students early in their academic programs with more services known to increase engagement, colleges may increase retention among those students.
- Gender was a strong predictor of student engagement. Male students reported lower levels of engagement in eleven of the fourteen areas of engagement. College leaders should be proactive in determining why men are less engaged and develop a plan to improve their success.
- Race was a significant factor in predicting student engagement. Generally, black students reported higher levels of engagement. Again, it would be important to determine why other students are less engaged and to create programs to improve student engagement and the overall success of students.

FUTURE RESEARCH

Community colleges will continue to be called upon to demonstrate their effectiveness through measures like student persistence and goal attainment. Student engagement research plays an important role in this endeavor by enabling college leaders to gain a clearer understanding of how well their own institutions or similar institutions are doing in providing the types of experiences and programs that research has shown are

conducive to student success. This study represents a small step toward understanding the experiences of students on small college campuses. The findings make it clear that engagement varies within institutions. Additional studies should continue this line of research and explore the differences between students that might affect their educational experiences. Future research should also focus on student outcomes to determine the degree to which engagement impacts educational persistence and attainment. Research in this area should maintain a central focus on moving community colleges toward the creation of academic and social environments that encourage all students to be more engaged in learning, more engaged in the campus community, and, in turn, more successful in fulfilling their academic goals.

SUMMARY

The findings presented in this study revealed a significant predictive relationship between time of enrollment and five of the fourteen engagement variables. Enrollment primarily in evening courses was linked with lower levels of student engagement in all five areas. Described as "the time and energy students devote to educationally sound activities inside and outside of the classroom, and the policies and practices that institutions use to induce students to take part in these activities," (Kuh, 2003, p. 25) student engagement is both a product of students' behaviors and the college environment. Small college leaders can consider the findings and recommendations from this study as they work to develop educational environments that better serve all learners.

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